

The Rise of the Sharing City

Examining Origins and Futures of Urban Sharing

Patrycja Maria Długosz

Supervisors

Professor Oksana Mont

International Institute for Industrial Environmental Economics (IIIEE), Lund University

&

Ms Susanne Salz

Project Manager, Collaborating Centre on Sustainable Consumption and Production (CSCP)

Thesis for the fulfilment of the
Master of Science in Environmental Management and Policy
Lund, Sweden, September 2014



© You may use the contents of the IIIIEE publications for informational purposes only. You may not copy, lend, hire, transmit or redistribute these materials for commercial purposes or for compensation of any kind without written permission from IIIIEE. When using IIIIEE material you must include the following copyright notice: 'Copyright © Patrycja M. Długosz, IIIIEE, Lund University. All rights reserved' in any copy that you make in a clearly visible position. You may not modify the materials without the permission of the author.

Published in 2014 by IIIIEE, Lund University, P.O. Box 196, S-221 00 LUND, Sweden,
Tel: +46 – 46 222 02 00, Fax: +46 – 46 222 02 10, e-mail: iiiiee@iiiiee.lu.se.

ISSN 1401-9191

Acknowledgements

I would like to thank my supervisors Professor Oksana Mont and Ms Susanne Salz for their dedication, thoughtful guidance, and constructive feedback throughout this thesis process. I also extend my gratitude towards all my interviewees and discussants for their generosity in sharing their time, expertise and thoughts.

A big thank you to all the faculty and staff at the IIIIEE for their enthusiasm, and passion. A special thank you to Birgitta, who is the greatest student coordinator there is. Thank you for untireedly replying to my emails.

A warm thank you to Mallory and Tilmann for reading over this thesis, and for their great comments and thoughts!

Last but definitely not least, my gratitude goes to my Family: To Fabian for being my greatest source of inspiration and enthusiasm: Thank you for always being there for me, for your unfading patience, for all the positive motivation, and hours of discussions and proof reading! To my Parents and Brother: Mamo, Tato i Piotrze dziękuję za to, że zawsze jesteście ze mną i we mnie wierzycie! To Marie and Bisi – dies wäre nicht ohne euch möglich – Thank you so much!

Abstract

With more than half the world's population living in ever more economically productive cities, and urbanisation continuing apace, large-scale environmental problems resulting from unsustainable, excessively consumption-focussed life styles are doomed to happen. Meanwhile large amounts of equipment and infrastructure are barely used. The recently emerged Sharing City concept combines the benefits of Sharing Economy and Collaborative Consumption with urban development and community building, and promises to address at least some of those issues. This study seeks to gain a better understanding of the concept, and to offer an insight into its (partial) implementation. A literature analysis, qualitative interviews, and three case studies allow identifying major reasons for and enablers of the Sharing City's emergence, driving forces, obstacles to implementation, and its potential. Structurally, the underlying changes in the global economy enabled it, as well as the recent economic crisis, changes in attitudes towards consumption and ownership, and the development and improvement of Information and Communication Technology (ICT). Driving forces behind the emergence of the Sharing City are identified in good access to ICT infrastructure, the presence of an energetic civil society and an accommodating city administration. Other drivers include a vibrant sharing business scene (as in San Francisco), an active municipality (like Seoul's), and a sharing-enthusiastic population (as Berlin's). Obstacles to the implementation and its dissemination are largely found in the legal frameworks governing four priority sectors for cities: food, transportation, housing, and jobs. Deficits are in both regulation that inhibits sharing but also a lack of regulation specifically for sharing. Sharing Cities can benefit the economic, environmental, social, and democratic dimensions of an urban community. One major criticism is levelled against the commercial expansion of sharing, which may be seen as an excessive marketisation of previously 'private' life spheres, subjecting ever-greater areas of life to the logic of commercial exchange.

Keywords: Sharing City, Sharing Economy, Collaborative Consumption & Production, Sustainable Urban Development

Executive Summary

More than half of today's world population lives in cities, and the number of urban residents grows by 60 million each year. Major urban areas are economic giants: the top 600 cities are predicted to generate 60 percent of global GDP growth by 2025, while top 100 alone will contribute 35 percent. Besides the economic benefits urbanisation promises, it also threatens to produce large-scale environmental problems amid an excessively consumption-focused lifestyle of urban residents. Meanwhile, the amount of equipment and infrastructure that surrounds us, but is barely used is astonishing when its potential is considered. For example 29 million personally owned vehicles are used on average one hour per day.

Collaborative Consumption and Sharing Economy have come to greater salience over the last years. The Sharing City is a concept that recently started to emerge, and combines the benefits of Sharing Economy and Collaborative Consumption with urban development and community building.

This study seeks to gain a better understanding of this newly emerged concept, and to offer an insight into its (partial) implementation. In particular, it asks:

- I. *a) Why do the Sharing Cities emerge, and b) what are the driving forces behind their emergence?*
- II. *a) What are the obstacles to the (successful) implementation and dissemination of the Sharing City concept on a wider scale, and b) what is its potential?*

In order to answer these research questions, this thesis uses a comprehensive literature analysis as well as applies a case study approach alongside qualitative semi-structured interviews.

The literature review identifies the vast scope of sharing within and beyond cities. Virtually anything can be shared by virtually anyone. There are different approaches to describing what can be shared. The Sharing Spectrum for example divides sharing options from the most tangible, material assets via products, services, to the least tangible such as capacity sharing. And while peer-to-peer sharing is the most discussed model, there are also business-to-consumer, business-to-business, consumer-to-business, and public administration-based examples. While not a physical place, the Internet is where sharing is happening and where transactions can be conducted. Initiatives in a local context are another locus of sharing.

Three case studies outline how the implementation of the Sharing City plays out empirically. Out of them, only one is a designed Sharing City. The municipal government of Seoul implemented it as a policy that offers an alternative way of tackling sustainability issues. In the other two, Berlin and San Francisco, the origins of sharing are arguably more organic. Both share a population that is more open to alternative movements such as Sharing initiatives. Their residents thus proved eager to engage in such projects. Berlin however, seems to currently lack an administration supporting the notion of Sharing whereas the strong Sharing business presence in San Francisco influences the visibility of Sharing. Located on three different continents, all three cities have the potential to become regional role models for the Sharing City.

In addressing the reasons for the Sharing City's emergence, four enablers were identified: the underlying changes in the global economy are a major structural factor. The recent economic crisis which motivated many people to reassess how they sustain their standard of life was an important impetus. Changes in attitudes towards consumption and ownership have changed,

and the development and improvement of Information and Communication Technology (ICT) have opened possibilities for individuals to coordinate their engagement in sharing resources which were previously unthinkable.

The driving forces behind the emergence of the Sharing City have consequently been identified in good access to ICT infrastructure, the presence of an energetic civil society and an accommodating city administration. Other drivers include a vibrant sharing business scene (as in San Francisco), an active municipality (like Seoul's), and a sharing-enthusiastic population (as Berlin's).

Obstacles to the implementation of the Sharing City and its dissemination are largely found in the legal frameworks governing four priority sectors for cities: food, transportation, housing, and jobs. They were identified in both regulation that inhibits sharing but also a lack of regulation specifically for sharing.

Sharing Cities can benefit the economic, environmental, social, and democratic dimensions of an urban community. Hence this is where the main potential of the concept lies. It should be noted however that these benefits are highly contingent on the kind of sharing implemented in cities. Depending on this implementation, sharing may lead not only to benefits but even have detrimental effects on employees, businesses, and other stakeholders.

Much of the sympathy for sharing and businesses engaged in it comes from its perception as a challenger to established forms of consumption and production. A major criticism is that this picture is built on a misrepresentation. Companies like Uber and AirBnB may be more closely attached to their investors on which they depend financially than to their users who generate the added value. More fundamentally, the commercial expansion of sharing may be seen as an excessive marketisation of previously 'private' life spheres, subjecting ever-greater areas of life (such as hospitality and favours towards strangers) to neoliberal logic of commercial exchange.

The above suggests two avenues for future research. On the practical side, more knowledge on the obstacles and facilitators to implementation, especially regarding regulation and its absence, could be a helpful source of information for policy-makers. From a Social Science point of view (which is not to say that this would not also be of value for policy), the disruptive effects of the Sharing City on a wider scale would merit further study.

Table of Contents

ACKNOWLEDGEMENTS	I
ABSTRACT	II
EXECUTIVE SUMMARY	III
LIST OF FIGURES.....	VI
LIST OF TABLES.....	VI
ABBREVIATIONS	VII
1 INTRODUCTION	1
1.1 BACKGROUND AND PROBLEM DEFINITION	1
1.2 AIM OF THE STUDY	2
1.2.1 <i>Research Questions</i>	2
1.3 LIMITATION AND SCOPE.....	2
1.4 AUDIENCE	3
1.5 DISPOSITION	3
2 METHODOLOGY	5
2.1 GENERAL OVERVIEW.....	5
2.2 LITERATURE REVIEW METHOD.....	5
2.3 CASE STUDIES METHODOLOGY	6
3 LITERATURE ANALYSIS.....	9
3.1 WHEN? THE BACKGROUND OF SHARING	9
3.2 WHY THE SHARING CITY?	10
3.2.1 <i>Urbanisation</i>	10
3.2.2 <i>Information and Communication Technology</i>	11
3.2.3 <i>Social Inclusion & Collaboration</i>	12
3.2.4 <i>Economic Crisis & Economic Considerations</i>	13
3.2.5 <i>Other Factors</i>	14
3.3 WHAT IS BEING SHARED?.....	15
3.4 WHO IS SHARING?	19
3.5 WHERE IS SHARING HAPPENING?.....	21
3.5.1 <i>Internet</i>	21
3.5.2 <i>Local initiatives</i>	22
3.5.3 <i>Snapshot cases</i>	23
3.6 HOW IS SHARING PERCEIVED? A CRITICAL NOTE	24
4 CASE STUDIES.....	26
4.1 SAN FRANCISCO.....	26
4.2 BERLIN	29
4.3 SEOUL.....	32
4.4 CASE STUDIES: PRELIMINARY CONCLUSIONS	34
5 ANALYSIS	36
5.1 ANALYSIS BASED ON LITERATURE REVIEW & CASE STUDIES	36
5.1.1 <i>Why do Sharing Cities emerge?</i>	36
5.1.2 <i>Driving Forces</i>	37
5.1.3 <i>Obstacles</i>	38
5.1.4 <i>Potentials</i>	38
5.2 ANALYSIS: PRELIMINARY CONCLUSIONS	40
6 DISCUSSION	41

6.1	RESEARCH AIMS & QUESTIONS LEGITIMACY	41
6.2	APPROPRIATENESS AND VALIDITY OF RESEARCH METHODOLOGIES.....	41
6.3	GENERALIZABILITY OF THE FINDINGS	42
6.4	DISCUSSION.....	43
7	CONCLUDING REMARKS	45
7.1	RESEARCH QUESTIONS ADDRESSED	45
7.2	CONTRIBUTION TO THE FIELD & FUTURE RESEARCH RECOMMENDATIONS.....	46
	BIBLIOGRAPHY.....	47
	APPENDIX A.....	59
	APPENDIX B.....	60
	APPENDIX C.....	64

List of Figures

Figure 2-1.	Criteria for Case Studies	6
Figure 3-1.	Snapshot Cases Map.....	23
Figure 3-2.	Imagining the Future of Sharing (excerpt) by Susie Cagle (2014).....	25
Figure 4-1.	Case Studies Map	26
Figure 5-1.	The Sharing City Analysis Wheel	36
Figure 5-2.	Participation in the Collaborative Economy: Recent and Projected (Crowd Companies & Vision Critical, 2014).....	39

List of Tables

Table 2-1.	Criteria & Cases	8
Table 3-1.	Collaborative Economy Honeycomb Framework adapted from Owyang (2014).....	16
Table 3-2.	Shared goods typology adapted from Lamberton and Rose (2012).....	18
Table 3-3.	The Sharing Spectrum as proposed in Friends of the Earth Briefing on Sharing Cities (Agyeman et al., 2013).....	21

Abbreviations

B2B – Business-to-Business
B2C – Business-to-Consumer
C2B – Consumer-to-Business
CC – Collaborative Consumption
CCK – Creative Commons Korea
CL – Collaborative Lifestyles
EC – European Commission
EU – European Union
GDP – Gross Domestic Product
ICT – Information and Communication Technology
NGO – Non-Governmental Organisation
P2P – Peer-to-Peer
PPP – Public-Private Partnership
PSS – Product-Service System
RMs – Redistribution Markets
SC – Sharing City
SCF – Seoul City Farmers
SCP – Sustainable Consumption and Production
SE – Sharing Economy
SME – Small and Medium Enterprises
WG – Wohngemeinschaft
VTL – Vancouver Tool Library

1 Introduction

“Now is the age of sharing.”

Creative Commons Korea, 2014

1.1 Background and Problem Definition

Two hundred years ago only three percent of the world’s entire population lived in cities. Today, more than half of all people call cities their home, with the number of urban residents growing by almost 60 million a year. If this trend, which is driven by rapid industrialisation, rural-urban migration, and globalisation, continues at its current pace, by 2050 over 70 percent of people will live in cities (United Nations, 2012; WHO, n.d.).

Because of their scale and complexity, the problems of managing cities and urban regions will be increasingly severe (Carley, Jenkins, & Smith, 2001). Today, major urban areas in developed regions are economic giants: Just the top 100¹ cities ranked by their contribution to global GDP growth in the next fifteen years are expected to contribute around 35 percent of GDP growth to 2025. Over the same period of time, the top 600 will generate 60 percent of global GDP growth (Dobbs et al., 2011). This very fact of higher levels of economic activity means that people tend to consume more resources per capita and to produce more waste than their counterparts in rural areas (Carley et al., 2001).

Growing urbanisation paired with western lifestyles, which represent the least sustainable ones in the world, is a recipe for environmental disaster². For decades, keeping up with the Joneses - a social pressure not to be worse off than the others – was the norm for most families. As the Joneses’ lifestyle choices went beyond what is needed for a comfortable life, others too started to acquire things that are not really necessary (c.f. Skidelsky & Skidelsky, 2012). Homes became a stage for displaying material possessions and status symbols.

Just one example of the unused economic potential – the idling capacity of home appliances, such as drills is enormous. In American homes alone there are approximately 50 million drills being rarely used (Botsman & Rogers, 2010b). The amount of rarely used equipment and infrastructure that surrounds us in our everyday life is astonishing: 29 million personally owned vehicles are used on average one hour per day; roads that are used primarily in peak times; extra belongings that are packed into storage units (ibid.). In the UK and the USA the items that people own and are used less than once a month amount to 80 percent of all items owned (ibid.).

For over fifty years hyper-consumerism was at centre stage and seen as the endpoint of development models (Rostow, 1990). Ironically, keeping up with the Joneses might today aid

¹ The top 100 cities as well as the top 600 cities were compiled by the McKinsey Global Institute in 2011. The full list is available from McKinsey Global Institute (Dobbs et al., 2011).

² Some examples of major problems in four sectors identified as crucial later in this thesis could be: for the food sector – e.g. food systems are industrialised and disjointed, and can be vulnerable to contamination and climate change; for the transportation sector – e.g. car-based transportation systems are inefficient, and polluting (CO₂, NO_x, and Ozone); for the housing sector – e.g. the urban sprawl has been condemned as unsustainable and inefficient; for jobs – e.g. unemployment and income inequality and their implications etc. (c.f. Agyeman et al., 2013; Dubois et al., 2014; European Environmental Agency, 2006). – The author would like to thank Mallory Anderson for inspiring this note.

another trend, that of sharing instead of buying (Botsman & Rogers, 2010b). Collaborative Consumption (CC) and Sharing Economy (SE), terms often used interchangeably, have developed over time and came to a greater salience within the past years.³

CC and SE are relevant for cities for a number of reasons. Socially, evidence suggests that the experience of sharing builds trust and community cohesion. Economically, it holds a potential to utilise valuable resources more efficiently and more sustainably, a constant challenge for many cities. It should be no surprise that many of the recent Sharing Economy models took off between 2008 and 2012 – in the aftermath of the worst economic recession in the OECD countries since the Great Depression (Blundell-Wignall, Atkinson, & Lee, 2008).

The Sharing City (SC) is a concept that recently started to emerge and combines the benefits of SE and CC with urban development and community building. The SC is a liveable city – a place where citizens can share infrastructure, utilise idle (public) resources, gain more access to data, establish and participate in sharing enterprises, advance community interaction, and more. The goal of the SC is to create jobs and increase (relative) incomes, address environmental issues, reduce unnecessary consumption and waste, to recover trust-based relationships between people and between people and institutions, and to address urban problems in innovative ways (Chesky, n.d.; Johnson, 2013; Stone, 2013).

1.2 Aim of the Study

This study seeks to gain a better understanding of the newly emerged concept of the Sharing City.

The *primary aim* of this study is to evaluate why Sharing Cities emerge, to identify the driving forces behind the concept, to recognise obstacles to its dissemination, and to investigate its potential.

The *secondary aim* is to present case studies from across the globe, and offer an insight into the (partial) implementation of the Sharing City concept.

1.2.1 Research Questions

Considering the primary and secondary aims of the study, two research questions will be examined in this paper:

- I. a) *Why do the Sharing Cities emerge, and b) what are the driving forces behind their emergence?*
- II. a) *What are the obstacles to the (successful) implementation and dissemination of the Sharing City concept on a wider scale, and b) what is its potential?*

In order to answer the above questions, a comprehensive literature review was conducted, and the case study approach applied alongside qualitative semi-structured interviews. Details of methodology used in this thesis will be outlined in Chapter 3.

1.3 Limitation and Scope

Several limiting factors arose during the preparation and research process for this paper.

³ While it can be argued that the Sharing Economy focuses on the micro level, and Collaborative Consumption emphasises the role of the individual consumer, in this thesis both terms will be used interchangeably.

The novelty of the Sharing City concept was a significant limitation. Although the concepts of Sharing Economy, Collaborative Consumption and sustainable urban development are relatively well-researched, new forms of integrating them into the city landscape are constantly emerging. The author acknowledges that due to the extremely dynamic and rapid evolution of this field, the case examples presented in the study may have changed, and new potentially better suited cases, which did not exist at the time of writing, could be emerging.

Difficulties in finding availability and scheduling of interviews proved to be a challenge, especially given the time-zone differences between Europe, North America, and Asia. The number of primary data sources was hence limited.

The language barrier of case studies presented a minor problem both for the primary and secondary data collection. The interviews were conducted in English, which was discouraging for some potential interviewees. Much of the literature related to the Seoul case study was inaccessible due to being published in Korean. The Berlin case study was also affected by the language barrier but to a lesser extent.

The scope of the study was relatively wide, focusing on the SC concept in general and with case studies from around the world. Such a wide geographic scope was chosen in order to better depict applicability of the concept as well as diversity of initiatives that can be undertaken in particular contexts across the globe.

As there is no established definition of SC, this paper uses quite a wide range and includes a variety of aspects as part of SC. Nevertheless, for the purpose of gaining a structured overview of SC, when presenting the case studies, four segments – most commonly present in SC – were established: Transportation, Food, Housing, and Jobs.

1.4 Audience

This thesis is principally intended for academic review and was completed in partial fulfilment of the requirements of the Master of Science programme in Environmental Management and Policy at the International Institute for Industrial Environmental Economics (IIIEE) at Lund University.

Secondly, it has been guided by and shaped to contribute to the research conducted by the Collaborating Centre on Sustainable Consumption and Production (CSCP).

Further, interested stakeholders could benefit from the information and concepts discussed in this thesis, along with other actors involved in or considering engaging with SC ideas.

Policymakers and regulators (local/municipal, regional, national) not least related to the case studies (San Francisco, Berlin, and Seoul) may gain a clearer picture of what a SC is or could be, and how can it be used to aid sustainable urban development in their cities.

Finally, people living in cities can get a better understanding of what options beyond traditional economic growth focused models are available to them in an urban setting.

1.5 Disposition

In Chapter Two the methodological approaches used in this thesis are outlined and explained.

Chapter Three offers a literature analysis, and gives a general overview of the SC concept: a background to its emergence, basic principles and working definition are outlined. The

chapter also presents three snapshot-cases of cities, all of which are aimed at exhibiting the variety of different projects possible in diverse contexts.

In Chapter Four three case studies are presented: San Francisco, Berlin, and Seoul. It summaries the findings from primary and secondary data collection related to the cases.

Chapter Five analyses the findings from the previous chapter in comparison to the literature review. It identifies reasons for the emergence of the Sharing City, driving forces behind it, obstacles to its implementation and dissemination, and the potential it offers.

In Chapter Six a broader discussion is undertaken. In this chapter the author takes a step back from the findings, discusses the design of the research, choices of methodology and analysis, and generalizability of the findings before embarking on an overall discussion.

Finally, answers to the research questions and concluding remarks are presented in Chapter Seven. Recommendations for further research are also highlighted in this chapter.

2 Methodology

2.1 General Overview

Given the novelty of the research area this thesis adopted an exploratory methodology with a qualitative case study approach.

The research methodology entailed triangulation approach, which encompasses different methods for data collection and analysis (Denzin, 1978). Therefore, the research process was undertaken in the following steps:

Firstly, consolidation of existing knowledge, research, literature, and policy recommendations through secondary (desk) research and literature analysis was conducted. The latter was aimed at identify overarching themes and ideas, and to develop a working definition of SC. The Kipling Method, described below, was used to organise the findings in a coherent manner. In order to complement literature findings, the author participated in the International CleanTech Network (ICN) Summit 2014: Creating Smarter Solutions in Copenhagen, Denmark.

The second step of the research involved identifying case studies, and choosing interviewees from selected cities: San Francisco, Berlin, and Seoul. The cities were chosen according to criteria designed by the researcher, and presented in Figure 3-1. Robert K. Yin's works served as a guidance for the case study design (2003, 2014).

The sampling of the interviewees was determined based on their expertise in SC field. Next, in-depth semi-structured interviews were carried out with five individuals (see Appendix A). A standardised peer-reviewed questionnaire was used, but room for more open discussion was also available. Interviews were carried out with one or two persons at a time, and based on interviewee availability two means of communications were used: four interviews were conducted via telephone/Skype, and one via email. If required, the interview questionnaires (see Appendix B for the interview guide) were sent to the interview partner in advance or after the interview for clarification. The research was also discussed with a number of individuals, who contributed to the final outcome (see Appendix B). Every participant was offered anonymisation of his/her contribution, however only one chose this option (European Commission Official).

Thirdly, a consolidation of the results from the first two steps was conducted in the analysis presented in Chapter Five. It evaluates the reasons for the emergence of the Sharing City, driving forces underlining it, obstacles to its implementation and dissemination, and its potential.

2.2 Literature Review Method

For the literature review the Kipling Method (named after Rudyard Kipling) also known as 5W+1H questions was chosen as a tool for organising the data, and presenting it in a coherent fashion. The 5W+1H questions are what, where, when, who, why and how (Kipling, 1902). They are useful in collecting information or grasp the situation and correctly define it (Reid & Smyth-Renshaw, 2012; Srivastava, 2013). This approach probes the fundamental aspects of the issue at hand by asking those general questions (Lewis & Elaver, 2014).

In this study the questions were adjusted and formulated specifically to aid the literature review.

Chapter Three sections are divided following the logic of the Kipling Method:

Section 3.1 gives a background to sharing and will answer the question *when* did sharing become part of urban landscape.

Section 3.2 focuses on *why* sharing happens in cities, what are the reasons for it, and what sharing opportunities exist.

Section 3.3 explores the question of *what* is there to be shared in a city.

Section 3.4 describes *who* shares in a city.

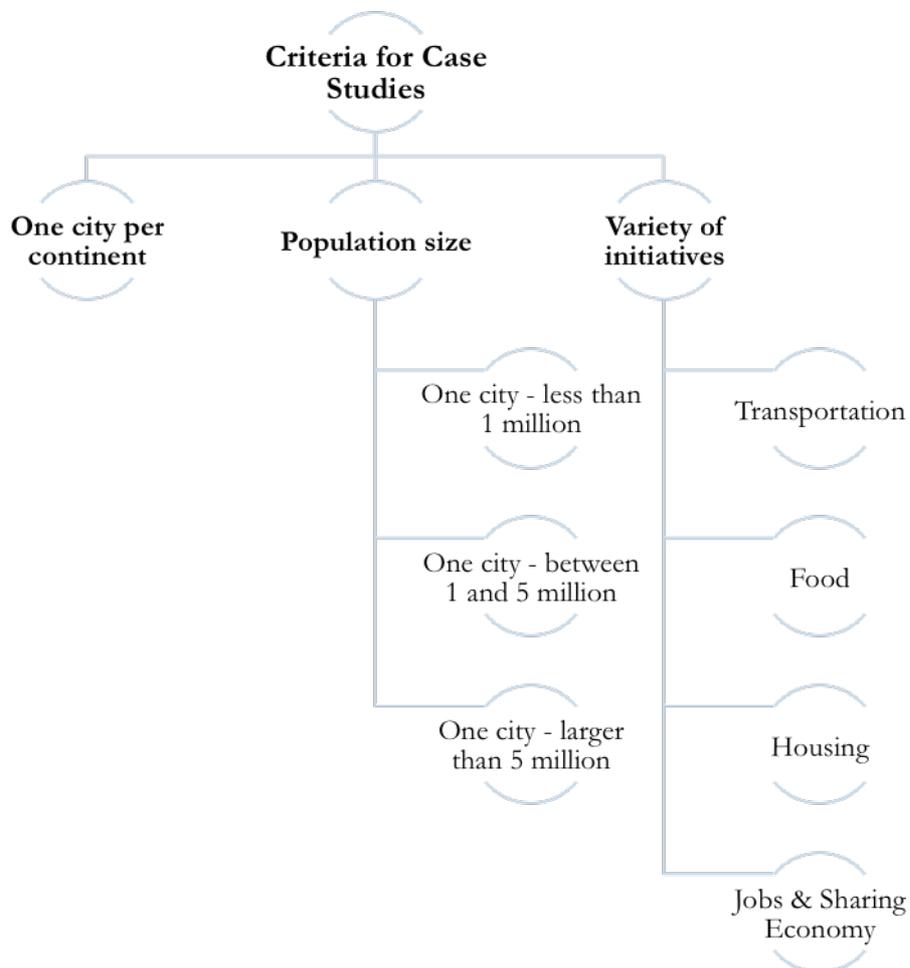
Section 3.5 focuses on *where* sharing happens within a city

Section 3.6 highlights the critique of SC as it stands at the moment, and hence asks the question *how* has SC been perceived until now.

2.3 Case Studies Methodology

The Case Studies presented in the Chapter Four were chosen based on criteria presented in Figure 2-1. It was decided that with space in this paper allowing no more than three cases, which should nevertheless reflect a global overview, there should be no more than one case

Figure 2-1. Criteria for Case Studies



per continent. Furthermore, in order to account for the impact of city size, three different population size brackets were established. It is assumed that city size and city location can be assessed separately, i.e. that the size of the city has the same or similar effect on the prevalence of sharing initiatives independent of the city's location in terms of geographical location. This assumption is based on observations of other size dependent city features such as per capita productivity and market diversity due to, amongst others, increasing economies of scale (Glaeser, 2011).

Finally, since the Sharing City label can hardly be assigned on the basis of single-sectoral initiatives alone, a further requirement for inclusion was the presence of initiatives in at least four sectors. Globally, priority sectors for cities are transportation, food, housing, and jobs (Shareable & SELC's Policies for Shareable Cities, 2013). Their potential and background is thus elaborated upon below, also as a background for the cases studies later in this paper.

With regard to the **transportation** sector, privately owned vehicles in the US sit idle for more than 90% of the time (Hampshire & Gaites, 2011). Consequently there is a great potential for improvement, which could bring noteworthy economic, time, public health, and environmental costs savings (ibid.). "In the sharing economy, transportation is about accessibility, not ownership" (Shareable & SELC's Policies for Shareable Cities, 2013). Some cities, for example have introduced cards with which users can access shared cars, bikes and public transport – such "intermodal integration" is very convenient, and can be economical too (Bus et Car & Intermodes, 2013). Therefore, with this approach, cities can reduce not only road congestion and air pollution, but also reduce parking demand, enhance mobility for those not owning a car, and increase use of alternative modes of transport, simply by facilitating access to car sharing, ridesharing, and public bike sharing (Shareable & SELC's Policies for Shareable Cities, 2013).

Sharing **food**, both in terms of production as well as consumption is a way of promoting health, local jobs, and community interaction. At the same time it also reduces environmental degradation, food insecurity and unequal access associated with industrial agriculture and disjointed food systems. However, currently legal barriers are still in the way of the transition to community-based food production (Shareable & SELC's Policies for Shareable Cities, 2013).

As for the **housing** sector, studies suggest that flat-share or housing cooperatives provide many benefits beyond cost sharing (Moore, 2014). They can foster greater social support, reduce crime, increase civic engagement, lower carbon footprints, enhance resident stability, and maintenance of premises. Moreover, they can reduce repossessions by offering larger savings and sharing the financial burden between a number of people. In the US alone, housing cooperatives in 2013 served 1.5 million households (Shareable & SELC's Policies for Shareable Cities, 2013).

The **Sharing Economy** offers an immense potential for **job** creation. Cities can support innovations such as shared workspaces, shared commercial kitchens, community-financed start-ups, community-owned commercial centres as well as spaces for "pop-up" business, by simply lowering the cost of starting businesses. Supporting the growth of such cooperatively owned enterprises may be one of the most important things that a city can do to foster stable, fair paying, and local job creation (Shareable & SELC's Policies for Shareable Cities, 2013).

Table 2-1. Criteria & Cases

<i>Criteria</i>	<i>San Francisco</i>	<i>Berlin</i>	<i>Seoul</i>
<i>Location</i>	North America	Europe	Asia
<i>Population size</i>	~ 825,000	~ 3.5 million	~ 9.7 million
<i>Variety of initiatives</i>	Present	Present	Present

Sources: CLA (2014d, 2014e); World Population Statistics (2013)

Table 2-1 shows that all the cases to be presented – San Francisco, Berlin, and Seoul did fulfil the criteria for selection. More detailed evaluation is presented next following the Kipling Method. The Method was chosen once again as in this context it is a useful way of organising data in a coherent manner.

Therefore, for each case the following sections will be presented:

When & Why? The background of sharing in each case

What, Who & Where? Overview of initiatives with special focus on transportation, food, housing and job & skills sectors

How is sharing perceived? A note on critique

3 Literature Analysis

This chapter introduces the reader to the concept of sharing, and in particular to sharing in cities, with an aim of depicting diversity of sharing in general. As mentioned in Chapter Two the Kipling Method was chosen as a tool for organising the data.

3.1 When? The Background of Sharing

According to Price (1975) “[sharing is] the most universal form of human economic behaviour, distinct from and more fundamental than reciprocity (...) Sharing has probably been the most basic form of economic distribution in hominid societies for several hundred thousand years” (as cited in Russell Belk, 2010, p. 715). All cultures across the globe share and have socially accepted codes for sharing (Agyeman, McLaren, & Schaefer-Borrego, 2013).

On the 20th of June 2012, a first National Sharing Day was organised in the UK. It engaged over 1 million people and was trending at #2 on Twitter globally by lunchtime. Based on this success the organisers ThePeopleWhoShare are now organising an annual Global Sharing Day on the 14th of November in the US, Australia, Chile, and 15 European countries (Opinium Research & Marke2ing, 2012). During the decades of welfare gains, private ownership of resources was a widely shared aim. The above shows that today, sharing is gaining momentum, but it is also gaining different narratives than its historic predecessors. Many definitions can be found in literature to describe sharing and how its meaning underwent changes. Some suggest that “sharing is an alternative form of distribution to commodity exchange and gift giving” (R. Belk, 2007, p. 126) or view “sharing as a sustainable, profitable alternative to ownership (R. Belk, 2007; Botsman & Rogers, 2010b; Lamberton & Rose, 2012, p. 3). Others note that sharing is simply “a way to live well on less money or to earn money with assets” already owned (Dubois, Schor, & Carfanga, 2014, p. 52). Goel claims that “sharing is the most effective tool for generating more value” (2014, p. 1). While others still underline that “sharing is practiced as form of oppressing the over-dependency of money in society” (Gorenflo, 2013a; Korobar, 2013, p. 15). More cynical observers state that “‘sharing’ is just a fancy word for ‘rental’” (Fournier, Eckhardt, & Bardhi, 2013, p. 126).

These changes in interpretation of sharing can be attributed to the fact that in the recent years it became much more than just an act of redistribution of goods, services and experiences. It also emerged as a business model (Benkler, 2004; Botsman & Rogers, 2010a; Dervojeda et al., 2013; Hughes, Lang, & Vragov, 2008; Kaplansky, Segal, & Wei, 2014).

This study uses the **definition of sharing** proposed by Belk (2010) who defines it as the “act and process of distributing what is ours to others for their use and/or the act and process of receiving or taking from others for our use” (as cited in Agyeman et al., 2013, p. 4). However, for the purposes of this research, the definition shall be broadened to include aspects of co-production and collaborative (or co-)consumption⁴.

At this point it is also worthwhile to mention two other concepts, which are tightly intertwined with sharing, namely the Sharing Economy, and the Access Economy.

The Sharing Economy⁵ is “is a socio-economic ecosystem built around the sharing of human and physical resources. It includes the shared creation, production, distribution, trade and

⁴ Collaborative (co-)consumption will be described in more detail in Chapter 3.3, pp. 16-17.

⁵ According to Koch (2014) the Sharing Economy in the UK alone is already worth 1.3% of the country’s GDP.

consumption of goods and services by different people and organisations”⁶ (Benita Matofska, n.d.).

The Access Economy “seeks to minimise the demand for materials”, and it “is focused on designing systems that facilitate more efficient, cost effective, and in many cases, community enhancing ways of enabling people to meet their needs by tapping what is already available and leveraging idle resources” (Ede, 2014).

Regarding sharing in the urban setting more specifically, it has always been essential to cities’ existence, and it has always been part of urban landscape albeit to different degrees and in different contexts. Cities have continually been places where space was shared, interactions and the exchange of goods and services through marketplaces and money lending took place. But cities are not simply venues for sharing, they are also shared entities themselves; the product of shared creation and co-production (Agyeman et al., 2013).

In the beginning of the 21st century new models of collective consumption and co-production that are both less commercial and more deliberately collective are emerging across the globe. Today, sharing in cities is gaining importance and is prodded as an ever more attractive opportunity to not only redistribute goods, services or experiences, but also a way to reduce the negative impacts of ever growing urbanisation in our world dominated by materialism (Agyeman et al., 2013).

While there is no commonly accepted definition of the newly emerged **Sharing City** concept, Neal Gorenflo, the co-founder of Shareable⁷ defines it as “a city where the commons dominates. There are three main ways to manage resources, through government, markets and the commons. The commons is the space where citizens self-provision with minimal reliance on market or government. There is no central intermediary between peers thus it’s a resource management regime that is more democratic, resilient, and resistant to corruption” (personal communication, 2014).

3.2 Why the Sharing City?

Urbanisation, information and communication technology, the desire for more social connection and collaboration, the economic crisis and other factors have all played a role in the shift towards sharing economies. The following section of this chapter explores the reasons for the emergence or revival of sharing in cities, and will elaborate on those factors in more detail.

3.2.1 Urbanisation

In the Age of Urbanisation, the rapid raise in the number of people living in cities is a cause for concern as the receiving municipalities are all but unprepared for an influx of masses of people adding to their populations in terms of e.g. infrastructure and public services (Haapio, 2012; Kunst, 2013). By 2050 two-thirds of the world’s population will live in cities, a fact that already poses unique challenges. This process will overwhelmingly take place in the developing world as 90% of future urban growth is predicted to take place in Asia and Africa (Anderson & Galatsidas, 2014).

⁶ For more information on the Sharing Economy refer to e.g. Matofska (n.d.); Dervojeđa et al. (2013); World Economic Forum (2013).

⁷ Shareable is an award winning not-for-profit “news, action and connection hub for the sharing transformation” (Shareable, n.d.-a)

In Europe on the other hand, around 75% of the population is already living in urban areas, and the prediction is that this number will increase to 80% by 2020 (European Environmental Agency, 2006). The European Union in its General Union Environment Action Programme to 2020 notes the significance of raising awareness of the importance of the natural environment in urban areas as well as the importance of achieving long-term sustainable development (European Union, 2014).

Highlighting the salience of urban development, John Wilmoth, director of the UN's population division has recently stated that "Managing urban areas has become one of the most important development challenges of the 21st century," and that "Our success or failure in building sustainable cities will be a major factor in the success of the post-2015 UN development agenda" (as cited in Anderson & Galatsidas, 2014).

But given their density of population cities can be remarkably efficient⁸. After all, it is easier to provide water and sanitation to people living in closer proximity. Access to health, education as well as other social and cultural services is also much more convenient in cities. Nevertheless, as cities grow, meeting basic needs of its residents is a problematic task. It causes a strain on the environment and natural resources. Poverty and resource depletion are another two of the many defining challenges that urbanisation is causing (The World Bank, 2014; World Economic Forum, 2013).

Sharing is one way of trying to address these challenges. It is, in a way, a systemic fix that can address those challenges simultaneously (Gorenflo, 2013b).

With urbanisation continuing, cities have an enormous opportunity to mitigate its negative impacts by implementing Sharing Economy principles. Some cities are already seizing this chance, and lately as many as 15 major cities signed a Shareable Cities Resolution, in which they promise to advance the Sharing Economy. Mayor Edwin Lewis of San Francisco and Mayor Park Won-soon of Seoul have been leading the way with their initiatives already underway (CO-UP/Share, 2013; Gorenflo, 2013b; Heinberg, 2013; Johnson, 2013; Schifferes, 2013b; Silver, 2013; Stone, 2013).

3.2.2 Information and Communication Technology

The increased availability of Information and Communication Technology (ICT) plays a crucial role in the contemporary re-emergence of urban sharing. Thanks to this advance in technologies, especially the growing access to the Internet, real-time applications, and the ease of their use – via, for example smart phones – sharing can flourish (Gaskins, 2010) (Shareable and Sustainable Economies Law Center Team, 2013). People of all ages are empowered by this development, and are able to unlock the idling capacity of various resources such as real estate, cars and tools. But the potential of sharing goes beyond the more efficient employment of resources. People also begin to realise that a different relationship to their material possessions is possible (especially those expensive to maintain or those used seldom etc.): they start to move away from a must-own mentality to one based on access (World Economic Forum, 2013).

Sharing mainly happens via internet-based sharing platforms, which often case are free or relatively inexpensive. Those platforms and social media are what makes sharing accessible,

⁸ This can, however, be challenged. For example, air-conditioning in buildings can prove in-efficient, and pumping water up a high story building can be wasteful. Questionable is also whether people actually travel less in metropolises. Therefore, this pint has to be taken with caution and considered in a context. – The author would like to thank Tilmann Vahle for this remark.

but it is also how the word can spread about possibilities to share. Websites such as Shareable.net showcase many sharing initiatives, which can serve as inspirations for others to follow. Initiatives are plentiful, and for all interested: car-sharers, bike-sharers, those interested in shared housing, offices and tools, shared jobs, shared ownership of energy generation, crowdsourcing, shared space for urban gardening or relaxation, they even engage in sharing dogs. For those who seek to engage in a specific initiative but cannot find one in their area, websites such as Sharetribe.com serve as platforms for creating an online marketplace easily, and without the need of engaging with developers or having to be a coding/design expert (Childs, n.d.; Gorenflo, 2013a; Makkonen, 2014; “Shareable,” 2014, “Sharetribe,” 2014).

The growth of sharing also reflects a wider development of the global economy from the production of physical goods to the management of “knowledge”. Companies like Uber and AirBnB, which challenge taxi fleets and hotels do so without assets like cars or rooms. They instead coordinate data streams about the location of people, cars and bedrooms. The data technology, and commercial networks are predicted to grow further, and as Mr. Larry Smarr⁹ of the University of California, points out the commercial networks “will have to grow, if we’re going to continue what has become our primary basis of wealth creation” (As cited in Hardy, 2014).

Another aspect is that of geographical distance. Technologies allow sharing amongst diverse networks of people, often across broad distances. But Internet and other ICT also allow accessing these untapped resources within a city and moving them from where they are not needed; often between people situated in close proximity but not knowing each other. This is a major advantage of sharing within a city, and also a motivation factor for doing so (cf. Botsman & Rogers, 2010b; Gaskins, 2010; Kneeshaw, 2014; Shareable and Sustainable Economies Law Center Team, 2013; The Economist, 2013).

Not to forget is another feature of technology advance: new technologies such as 3D printing create opportunities for shared manufacturing (Childs, n.d.). While important to mention this particular aspect, it is not going to be elaborated upon in this paper in much more detail.

Sharing in cities is therefore enabled largely by technology, and it is not a stretch at all to state that without it sharing would not be happening or at least not on such a scale (Fournier et al., 2013; Schifferes, 2013a; Silver, 2013).

3.2.3 Social Inclusion & Collaboration

That sharing goes beyond a drive for more efficiency in the use of resources has already been touched upon above. Other features important for the healthy development of cities are amongst others, integration of different sectors of society and feeling of security (European Commission Official, personal communication, 2014). In particular, sharing is seen by many as a great opportunity to increase trust and collaboration between strangers (cf. Botsman & Rogers, 2010b; CO-UP/Share, 2013; Gaskins, 2010; Schifferes, 2013a; Silver, 2013). It is also enhancing social contacts, not least with one’s neighbours or within a community, albeit using the internet (Volker & Flap, 2007).

Sharing Economy models can thrive where there is a positive attitude towards sharing and collaboration (World Economic Forum, 2013). Still, technology and social media are enablers of this new way of collaboration in an otherwise highly individualised and relatively fragmented modern Western society (Opinium Research & Marke2ing, 2012). Some argue that

⁹ Mr. Smarr is the Director of the California Institute for Telecommunications and Information Technology, at the University of California, San Diego.

sharing disturbs the individualistic and materialistic vision of capitalism (Agyeman et al., 2013; Friends of the Earth, 2013). Sharing between urban residents is considered to be worthy because it furthers endogenous potentials, local growth, and social integration.

A Sharing Economy study suggests that sharing is a means to build (or re-build) community (Gaskins, 2010). According to Seoul's Social Innovation Division Director, Mr. Kim Tae Kyoon, Sharing City could help citizens to regain some of the community that rapid urbanisation and industrialisation caused to diminish or disappear altogether (Johnson, 2013). It can contribute to an increase in interpersonal exchanges and help to restore broken relations since it promotes a reciprocal economy (CO-UP/Share, 2013).

According to Professor Agyeman (2014), Sharing Cities prioritise social justice. Agyeman stresses that it can naturally shift cultural values and norms towards trust and collaboration, when it is done with equity and justice. He then underlines Benkler's argument that "Both analytic models and empirical evidence support the proposition that as kind, sharing, and reciprocal behavior increases in society, so does the tendency to trust others, reciprocate, and behave pro-socially" (2004, p. 341). This effectively means that by practicing sharing people learn to appreciate it more, and to trust other participants (*ibid.*).

For someone with a mind-set recognising the limits to economic growth, who understands the limitations that the world faces today and who is open to innovation and prioritises resource efficiency, the Sharing City is an answer to our society's problems worth supporting. Matofska (2013) goes as far as to say that as a society we have survived through sharing. Such an attitude further promotes the concept. Moreover, the sharing approach can be manifested in almost every sector of society and in every corner of the globe, with examples in Seoul, Medellín and Berlin, to name a few (World Economic Forum, 2013).

3.2.4 Economic Crisis & Economic Considerations

The business landscape is changing according to the Worldwatch Institute (Niculae, Glyki, & Campbell, 2013). Corporations today are facing new and growing challenges in conducting their business-as-usual. The collapse of financial systems and the 2008 global financial crisis, a complex economic event whose impacts are still being tallied, triggered many changes. The crisis has not only been indicating the end of the industrial-era model of making business, but also implied the need for a systemic transformation: one, which will allow both society and the business world to meet new 21st century global challenges such as population growth and resource scarcity (Brenner, Marcuse, & Mayer, 2009; Niculae et al., 2013).

In the aftermath of the crisis, certain terms such as Sharing Economy begun to become more popular (Macaulay, 2012; Zervas, Proserpio, & Byers, 2014). How has this crisis provoked alternative visions of urban life that point beyond capitalism, which was used as a structuring principle of political-economic and spatial organisation (Brenner et al., 2009)? The crisis effectively caused a rethink of materialism and sharing became a post-crisis antidote to overconsumption (Andersson, Hjalmarsson, & Avital, 2013; Kaplansky et al., 2014). All in all, the crisis and its consequences gave a way to sharing as it started to spread rapidly (*cf.* Brenner et al., 2009; Cohen, 2013; European Union, 2014; Kaplansky et al., 2014; Korobar, 2013; Mayer, 2009; Niculae et al., 2013; Sørensen & Torfing, 2010).

The financial crisis and the economic recession that followed forced many households to rethink their consumption pattern as well as how to better utilise their existing physical assets

(Olson & Connor, 2013). For some, it resulted in simply abstaining from new purchases¹⁰, for others new options such as carsharing begun to become a very agreeable alternative (ibid). For many the lack of access to funds via traditional sources, such as banks, led to the wider acceptance of peer-to-peer (P2P) markets for money lending (Opinium Research & Marke2ing, 2012). These rationales follow the predictions of sharing theory which posits as one reason for individuals to collectively assume the cost of an item or resource that they could not afford it otherwise (Volker & Flap, 2007). But there are other reasons too.

The economic recession following the crisis put strains not only on private but also on public finances and thus available resources. Sharing offers itself as a way of keeping economies local, and making them more resilient to global change (Childs, n.d.). In “Policies for Shareable Cities”, Shareable states that “fostering the growth of the sharing economy is the single most important thing that city governments can do to boost prosperity and resilience in terms of economic crisis and climate change” (2013, p. 6). Hence, the Sharing City is not only the economic crisis remedy for private people or businesses, but it is so for the public as a whole, too (Sørensen & Torfing, 2010). Ideally though, as the Worldwatch Institute points out, the way forward is that all parts of society should work towards a common future together (Niculae et al., 2013, p. 8).

3.2.5 Other Factors

Consumption

The role of formal and informal forces shaping consumption and their implications on the societies also has to be acknowledged. Such forces can be policies designed to accelerate resource extraction and consumption, or urban planning and construction policies, which are designed to facilitate consumption growth (Mont & Power, 2010). Others can include marketing and advertising, which strongly influence shopping patterns, and stimulate or pressure customers to purchase more goods, which more and more tend to be designed to have ever-shorter life cycles (ibid.). Consumers encouraged by such advertising and marketing discard still functioning products (30% of all discarded appliances are still functional) and replace them with new ones (ibid.). These days, an average consumer spends 38 minutes shopping for consumer goods per day (Mont & Power, 2009). On a macro level, this results in unsustainable consumption levels. One of the consequences of this excessive consumerism culture are that with limited space not least for disposal in cities, municipalities struggle to cope with waste (City of London, 2014; Fell, 2012). Therefore, the global and local adverse consequences of (over-)consumption and its particularly severe and immediate implications on urban areas are most definitely an important reason for cities to engage in sharing.

The Environment

Sharing promises a positive impact on the environment as well as further benefits to urban areas. However, these have yet to be recognised by cities and its inhabitants as important drivers for its implementation as economic gains dominate its positive perception (N. Kwon & D. Jung, personal communication, 2014). Resource efficiency and potential energy savings are just some of the environmental benefits common to many sharing initiatives (Agyeman et al., 2013). With products and services shared among a group or a community, less energy is needed for transportation and production, and less waste is created in the satisfaction of each consumer’s needs (Russell Belk, 2010). From the more efficient utilisation of urban land by

¹⁰ According to Olson & Connor’s study, during the worst of the recession, US car sales fell to their lowest since 1951 (2013, p. 6).

community gardens¹¹ to the reduction of CO₂ emissions by using shared transportation to the sharing of knowledge and increasing awareness, the many already available sharing initiatives offer diverse means to deal with environmental issues (Agyeman et al., 2013; The World Bank, 2013).

Urban Mining

Building on sharing environmental resources, it is vital to highlight a new approach toward recycling: Urban Mining. It can be defined as “[t]he process of reclaiming compounds and elements from products, buildings and waste” (Urban Mining, n.d.), and can also be seen as a method of sharing and a reason for sharing (c.f. Brunner, 2011; Butterworth, 2012). As cities are always in the need of resources, urban mining can be attractive, particularly in megacities as it can produce sufficient amounts of secondary resources for large-scale production of raw materials. Urban Mining can improve the sustainability of cities by “combining recycling plants for metals such as iron, aluminium, and copper in cities with utilization of waste energy from such plant to fuel the city (heating, cooling, electricity)” (Brunner, 2011, p. 339).

3.3 What is being shared?

Earlier in the text a working definition of sharing was established and incorporated in it the processes of co-production, and co-consumption and of receiving or taking from others for our own use.

But what is actually being shared in the Sharing City? Many approaches have been taken in order to depict the diversity of sharing (cf. Agyeman et al., 2013; Botsman & Rogers, 2010b; Lamberton & Rose, 2012; Owyang, 2014). The subsequent section outlines conceptual approaches to sharing, especially in cities, and expands on examples of resources that fall within the scope of urban sharing.

Collaborative Economy Honeycomb Framework

In his Collaborative Economy Honeycomb Framework Jeremiah Owyang (2014) depicts a variety of collaborative economy options, which are in essence a selection sharing possibilities. He organises them in six main families, and breaks them down further into 14 sub-classes, and finally presents example companies involved in each one. The whole Honeycomb Framework can be found in Appendix C, and the simplified framework is presented in Table 3-1 below.

According to Owyang (2014) such an approach depicts how collaborative economy enables people to efficiently access, share and grow resources among a common group. Allegorically speaking, the honeycomb structure itself is designed to support the whole by distributing the load and wasting little (e.g. resources), as well as replicating at scale easily (ibid.).

¹¹ Given the conveyed novelty of sharing in cities, it may be seen as ironic that neoclassical economics' classic case deals with the inefficient utilisation of land when organised in a cooperative – sharing – manner as opposed to one based on assigned property rights. In that sense, the advantages of sharing over other forms of consumption should be seen with some critical distance given the fact that the new ways of sharing are often limited to exactly assigning property of given resources and thereby utilising them more efficiently according to neoclassical economic principles. – The author would like to thank Fabian Stroetges for this observation.

Table 3-1. Collaborative Economy Honeycomb Framework adapted from Onyang (2014)

<i>Family</i>	<i>Sub-class</i>	<i>Examples</i>
<i>Goods</i>	Loaner Products	Pley or RocksBox
	Pre-Owned Goods	eBay or Kijiji
	Bespoke Goods	Etsy or Quirky
<i>Food</i>	Shared Food	LeftoverSwap or Meal Sharing
	Shared Food Preparation	Blue Apron or KitchIt
<i>Services</i>	Personal Services	TaskRabbit or Shyp
	Professional Services	crowdSpring or BidWilly
<i>Transportation</i>	Loaner Vehicles	Car2Go or DriveNow
	Transportation Services	BlaBlaCar or Uber
<i>Space</i>	Work Space	ShareDesk or Breather
	Place to Stay	Couchsurfing or HomeAway
<i>Money</i>	Crowd-funding	OurCrowd or CircleUp
	Moneylending	LendingClub or Zopa
	Crypto Currencies	BitCoin or LiteCoin

Collaborative Consumption Systems

Another way of classifying Collaborative Consumption, which comprises different mechanism is that proposed by Botsman and Rogers (2010b). CC is “[a]n economic model based on sharing, swapping, trading, or renting products and services, enabling access over ownership. It is reinventing not just what we consume but how we consume” (Botsman, 2014).

They further divide it into three distinct systems:

Product Service Systems (PSS) – “[i]n a PSS, a service enables multiple products owned by a company to be shared (car sharing, solar power, laundrettes), or products that are privately owned to be shared or rented peer-to-peer (Zilok, TheHireHub, Erento). PSSs can also extend the life of a product (repair services offered by Steelcase, or Interface Carpets, for example” (Botsman & Rogers, 2010b, p. 72). In other words, “[i]n PSS, consumers pay not to buy material goods, but to use them” (Mont & Power, 2009, p. 53);

Redistribution Markets (RMs) – a RM “encourages reusing and reselling old items rather than throwing them out, and also significantly reduces waste and resources that go along with new production” (Botsman & Rogers, 2010b, pp. 72–73). In short, it deals with the redistribution of unwanted or underused goods (Botsman, 2014). Sometimes, a RM can be based on free exchanges (e.g. Freecycle & Kashless); or goods can be sold for points (e.g. Barterquest & UISwap) or for cash (e.g. eBay, Flippid); the markets can also be a mixture of the above (e.g. Gumtree & craigs-list); goods can be swapped for similar goods (e.g. BigWardrobe & SwapStyle) or for similar value (e.g. Swap & SwapCycle); they can be conducted between strangers as well as exclusively between people who know each other (e.g. NeighborGoods & Share Some Sugar) (Botsman & Rogers, 2010b, p. 72);

Collaborative Lifestyles (CL) – CL happen when “people with similar interests are banding together to share and exchange less tangible assets such as time, space, skills and money” (Botsman & Rogers, 2010b, p. 73). They can be arranged on a local level (e.g. for working spaces – The Cube London; gardens – Edinburgh Garden Share; or food – Neighborhood Fruit; etc.) or on a wider, worldwide level (e.g. for P2P social lending – Zopa; or travel – AirBnB (ibid).

The Sharing Spectrum

In order to better picture the above, and incorporate other aspects of sharing Agyeman, McLaren & Schaefer-Borrego (2013) designed the Sharing Spectrum (see also Table 3-3) in their Briefing on Sharing Cities.

The Sharing Spectrum divides sharing options from the most tangible to the most intangible assets. It further divides them into five categories:

Material (most tangible) – incorporating concepts such as recovery and recycling of e.g. glass and paper;

Product – focused on Redistribution Markets, for instance flea markets or charity shops;

Service – which is in essence a Product Service System, like Zipcar or Netflix;

Wellbeing – could be described within the concept of Collaborative Lifestyles for example peer to peer travel such as AirBnB; and

Capacity (least tangible) – the concept behind this category is one of Collective Commons, with examples ranging from the Internet to participative politics.

Shared Goods Typology

Lamberton and Rose (2012) developed a typology of sharing presented in Table 3-2 (see below). It distinguishes goods that are shared by the extent to which they are rivalrous, meaning that one person’s consumption prevents another from consuming the same good, and/or exclusive meaning that the use is limited to a particular group (Agyeman et al., 2013).

This simple classification allows distinguishing between the ease of access to products and services, and can be particularly helpful to categorise markets for commercial sharers. Bike sharing schemes can serve as an example for quadrant 3 type of sharing. They usually represent relatively low exclusivity (low cost to participate), but rivalry for access to the shared bike can be high, meaning that usage by one user is depended on the previous user’s return of a bike on time and in serviceable condition (Lamberton & Rose, 2012).

Table 3-2. Shared goods typology adapted from Lamberton and Rose (2012)

	<i>Lower exclusivity</i>	<i>Higher exclusivity</i>
<i>Lower rivalry</i>	QUADRANT 1 Public goods, e.g. public parks, open source software	QUADRANT 2 Club access, e.g. country clubs, gated communities
<i>Higher rivalry</i>	QUADRANT 3 Rental and reuse ¹² , e.g. toolbanks, Freecycle, car sharing	QUADRANT 4 Closed commercial, e.g. frequent flyer mile sharing schemes

Four Dimensions of Urban Sharing

Additionally to the above, Agyeman et al. (2013) in their report identify four dimensions of urban sharing, which as they highlight rely on and help to define the Collective Commons in the city:

Exchange of goods and services – collective and collaborative activities, such as banking etc. Even though they grew into mostly commercial sharing, nonetheless new models of collective consumption and co-production are on the rise since the early 21st century in cities;

The Public Realm – the physical clustering and interaction, and sharing of ideas etc. Examples could range from cultural events and movement to political reclaiming of public space as a symbolic means to revolt against unjust power dynamics, such as those in Tahrir Square of Cairo in 2011 and 2013, and in Gezi Park in Istanbul also in 2013 (c.f. Kuymulu, 2013; Purcell, 2013);

Infrastructure – sharing of the public as well as private infrastructure in a city, such as childcare, healthcare and various types of cooperatives, ranging from retailer cooperatives (sharing manufacturer discounts) to consumer cooperatives (sharing retail and financial services) etc.¹³;

Environmental Resources – resources such as water and air are inevitably shared everywhere, but in cities sharing process is more intensive than elsewhere. Some examples of sharing environmental resources are: high rise developments that can be seen the most effective form of land-sharing, multi-purpose streets and public spaces, materials used in all sorts of products ranging from buildings to newspapers can also be shared through recovery and recycling etc. (Agyeman et al., 2013).

In summary, almost any resource of the modern urban economy falls within the scope of the above sharing concepts, and therefore almost anything can be shared in the Sharing City. Sharing is relevant to a wide range of actors (as it will be outlined in the next section), and the above categorisations can help to inform them of their options. Individuals, businesses or public administrations can identify and engage in all of those sharing options, or could include only some of them in their activities depending on their objectives and their degree of creativity.

¹² Lamberton and Rose (2012) call these ‘open commercial goods’, but as Agyeman (2013) points out, this category encompasses much not-for-profit sharing.

¹³ See for example the case of Medellín (Chapter 2.5.3).

3.4 Who is sharing?

As has been alluded to above, the traditional ownership-based model of the economy is undergoing changes. In a conventional situation, consumers would purchase products and become the owners in order to use them. As the transition from ownership towards accessibility is taking place, the manner and agents of commerce are also changing (Dervojeda et al., 2013).

Peer-to-Peer

Recently, a lot has been written about peer-to-peer (P2P) transactions (c.f. Andersson et al., 2013; Botsman & Rogers, 2010b; Hampshire & Gaites, 2011). P2P can be considered the most common model of sharing in collaborative economy. The original P2P marketplace model first introduced in the 1990s by eBay, Craigslist and Napster allows individuals to share, sell or give away their goods to another individual directly (Olson & Connor, 2013). It does not have to involve any middleman other than the website used for the transaction. P2P economic activity shifts value away from that middleman, and enables consumers as well as producers to make alternative lifestyles possible (Dubois et al., 2014). To quote Crowd Company and Vision Critical (2014): “In this world, the people formerly called “consumers” are also funders, producers, sellers and distributors. Their stories matter to big brands, because this movement means that people can get what they need from each other – rather than buying from [companies]” (As cited in Growth Strategies, 2014, p. 2).

Today, a re-imagination of this original approach is occurring, as a shift in consumer preferences toward the “asset-light” rental model (as opposed to asset-heavy ownership) is evident in the growing popularity of services such as Uber, AirBnB and TaskRabbit (Olson & Connor, 2013).

Business-to-Consumer

Another approach to conducting commerce is a Business-to-Consumer (B2C) model. B2C is where companies make their products or services available to members of that service (Shareable & SELC’s Policies for Shareable Cities, 2013). A good example of such service can be one of car sharing companies that make their fleet of vehicles available to the members of such service as with for example Car2Go (Steinberg & Vlastic, 2013). While run by commercial companies (in the case of Car2Go the mother company is Daimler), B2C can make significant contributions to the efficient use of resources by e.g. taking cars off the streets or allowing those who do not normally own a car quick access to one (ibid.)

Business-to-Business

The Business-to-Business (B2B)¹⁴ model allows one company to provide services to another. In this setting, the provision of a service happens usually online, and enables companies to share, for example their inventory. The established example for a company following the B2B model is Xerox, which has reinvented itself from a company manufacturing and selling photographic paper and equipment to one that provides the service by lending and servicing the equipment (Kearns & Nadler, 1995). Even numerous B2B models are already in use for considerable time, this setting of Collaborative Consumption offers good growth opportunities, and is currently on the rise (World Economic Forum, 2013).

¹⁴ In this context B2B is meant by sharing services such as photocopying etc., and not providing materials or components in a typical supply chain transactions, such as windscreens for cars, which are needed to manufacture a final product.

Consumer-to-Business

Possibly the most counterintuitive, the Consumer-to-Business (C2B) model is yet another based on various types of trading partners (Phan, 2003). In C2B approach a consumer makes a product or service and shares it (for free or for a charge) to a business (Janssen, n.d.). Such transactions can be seen primarily on blogs or Internet forums, where for instance a consumer/author offers a link to an online business (e.g. eBay, AirBnB or Uber) thereby facilitating a purchase or a share opportunity by another consumer/user. This type of business model offers a valuable opening to access ever more potential customers/users as the Internet links large groups of people that might be otherwise more difficult to connect to.

Public Administration

Another actor in the sharing city, and one that can relate to all previous ones is the public administration. It typically interacts with citizens, businesses and other administrations, and can be a very valuable and influential player in the Sharing Economy (Macaulay, 2012). It provides the infrastructure via which sharing can happen, and can have a immense impact on the way all other actors can participate in sharing by implementing regulations or by using communication and information tools, which can increase awareness about sharing options (Hansen & Power, 2010). It also faces challenges associated with its role, and has to continuously adapt to new circumstances that arise, such as the increased significance of sharing initiatives within a city¹⁵ (Macaulay, 2012).

Other Ways of Categorisation¹⁶

Previously in the text the Sharing Spectrum was mentioned (see Table 3-3 below). In it, Agyeman et al. (2013) illustrate the usual participants of sharing initiatives. For material goods recovery and recycling, there are typically many suppliers, and few users, whereas for products in Redistribution Markets there is a single provider to a single user. A single provider to many users is a typical setting for sharing services in PSS. In Collaborative Lifestyles where “wellbeing” is being shared there are typically many single providers to many single users (P2P), whereas for sharing capabilities collective providers to collective users are the typical participants.

It is noteworthy acknowledging at this point the differences between the people who participate in sharing. Different types of sharing enterprises accommodate the needs of various kinds of people. For some it is imperative that they share within the network of people they know, or have something in common, e.g. live in the same neighbourhood. Living in the same area allows them not only to share their resources etc. but also enhance neighbourly or community values (c.f. Russell Belk, 2010; Sacks, 2011). Other people share across the spectrum, and are willing to collaborate with anyone as it is for instance with bicycle sharing or clothing libraries (c.f. Botsman & Rogers, 2010a, 2010b).

¹⁵ See for example the case study of San Francisco (Chapter 4), where the city’s administration adjusted regulations to enable a range of initiatives to function.

¹⁶ Only the most fundamental categorisations on sharing participants are presented in this chapter, for more detailed information on who can participate in sharing see e.g. Belk (2007; 2010, 2014); Botsman & Rogers (2010a, 2010b); Gansky (2010)

Table 3-3. *The Sharing Spectrum as proposed in Friends of the Earth Briefing on Sharing Cities* (Agyeman et al., 2013)

<i>What is being shared?</i>	<i>Concept</i>	<i>Examples</i>	<i>Participants (typically)</i>
<i>Material</i> Tangible	Recovery and Recycling	Glass and paper banks, scrapyards	Many suppliers, few users
<i>Product</i>	Redistribution Markets	Flea markets, charity shops, freecycle	Single provider to single user
<i>Service</i>	Product Service Systems	Zipcar, Netflix, fashion and toy rental, libraries	Single provider to many users
<i>Wellbeing</i>	Collaborative Lifestyles	Errand networks, peer to peer travel (e.g. AirBnB)	Many single providers to many single users (P2P)
<i>Capability</i> Intangible	Collective Commons	The Internet, safe streets, participative politics	Collective providers to collective users ¹⁷

Good relations between government, public, private and business spheres in a city are indispensable when considering the participants of sharing initiatives. In Seoul (see also case study in Chapter 4.1.3), a city that promotes the concept of the Sharing City vigorously, the government has acknowledged the importance of cooperating with sharing companies, and non-profit organisations (NGO) as well as citizens who all constitute sharing partakers (Johnson, 2013; World Economic Forum, 2013).

In summary, given the right circumstances as well as appropriate infrastructure, and more recently access to ICT, sharing in a city but also in general can happen between essentially anyone. Businesses, NGOs, citizens, the public, and governments are all part of sharing, and the cooperation between them is what makes sharing such an attractive option for cities. On balance, also in an urban setting “[s]ustainability ultimately is not about individual choices in the market place, it is about the commons” (Banbury, Stinerock, & Subrahmanyam, 2012, p. 503).

3.5 Where is sharing happening?

What is the most common place for sharing to happen? Cities are far more likely to be places with initiatives (Botsman & Rogers, 2010b). However, more salient than the question about the geographic location of sharing is the medium through which it is organised. Therefore, while not a physical location, it is in the Internet where sharing is happening. Furthermore, in an urban setting local initiatives as well as organised businesses are gaining in importance (c.f. Childs, n.d.; Schifferes, 2013b).

3.5.1 Internet

“The Internet is a cornucopia of shared information available to all” (Russell Belk, 2010, p. 715). The Internet is what enables sharing as well as a space where sharing happens or where transactions can be conducted. A mere search on the Internet and access to nearly infinite shared resources is possible. When typed into Google, “share Berlin” returns 116,000,000 hints (on the 20th of August 2014), including links to room-share, borrowing shops, co-working opportunities, and car & bike share options to name but a few.

Mont & Power (2009, p. 17) emphasise that “[t]he Internet became a powerful marketing channel, improved consumer access to information, created a perfect frictionless market with

¹⁷ Collective as well as community based (e.g. community street watch or local political/social movements etc.).

abundant information and close-to-zero transaction costs, which expanded markets in terms of time and space.” Low transaction costs are one of the reasons why sharing via the Internet is so prevalent (Andersson et al., 2013). It means that sharing of assets became easier and less burdensome than previously, and hence more beneficial (c.f. Dervojeda et al., 2013; Eggers & Goldsmith, 2009). Low transaction costs have for example enabled the establishment of gift-based approaches such as Freecycle where people have the chance to give away their goods without spending time on finding someone to take them – the website facilitates this part of a transaction (Agyeman et al., 2013).

The Internet paired with ICT such as portable devices, which allow for instant access to Web resources as well as offline services, are another reason why sharing is on the rise (c.f. Botsman & Rogers, 2010b; Schifferes, 2013a, 2013b). Not too long ago it was unimaginable to access all available information on ride sharing in a city or a specific location via often GPS-enabled digital service in a matter of seconds – today it is a standard. Not only information is available in this digital world, customers can make instant payments with integrated automatic payment systems available more and more widely, making transactions even easier (Andersson et al., 2013).

3.5.2 Local initiatives

On a local level an emergence of collaborative markets as well as cooperative economies shows first steps of moving from selective or basic initiatives to a full-circle economy (Schultz, 2013). From local currencies to the rapid sprouting of local, urban farms cooperatives that use rooftops, abandoned buildings or unutilised land, new local initiatives are emerging. Those local initiatives all contribute to tackling down the traditional notion of neoliberal consumption (Korobar, 2013).

Botsman and Rogers (2010a, p. 30) highlight that in Collaborative Lifestyles, “people with similar needs or interest band together to share and exchange less-tangible assets such as time, space, skills and money” and that “[t]hese exchanges happen mostly on a local or neighbourhood level, as people share working spaces (for example, on Citizen Space or Hub Culture), gardens (on SharedEarth or Landshare), or parking spots (on ParkatmyHouse).”

A small local community communicating via WhatsApp messenger group, and cooking takeaway meals for each other was the principle on which Shareyourmeal was founded. Notably, platforms such as Shareyourmeal that are not solely focused on commercial gains also help to create local communities and social cohesion. In this particular case, the company attracted subsidies from local authorities, and several foundations for precisely that reason (Dervojeda et al., 2013). Toy lending libraries give parents the opportunity to share communally owned toys in their neighbourhoods, and by doing so reduce their consumption of new toys (Ozanne & Ballantine, 2010).

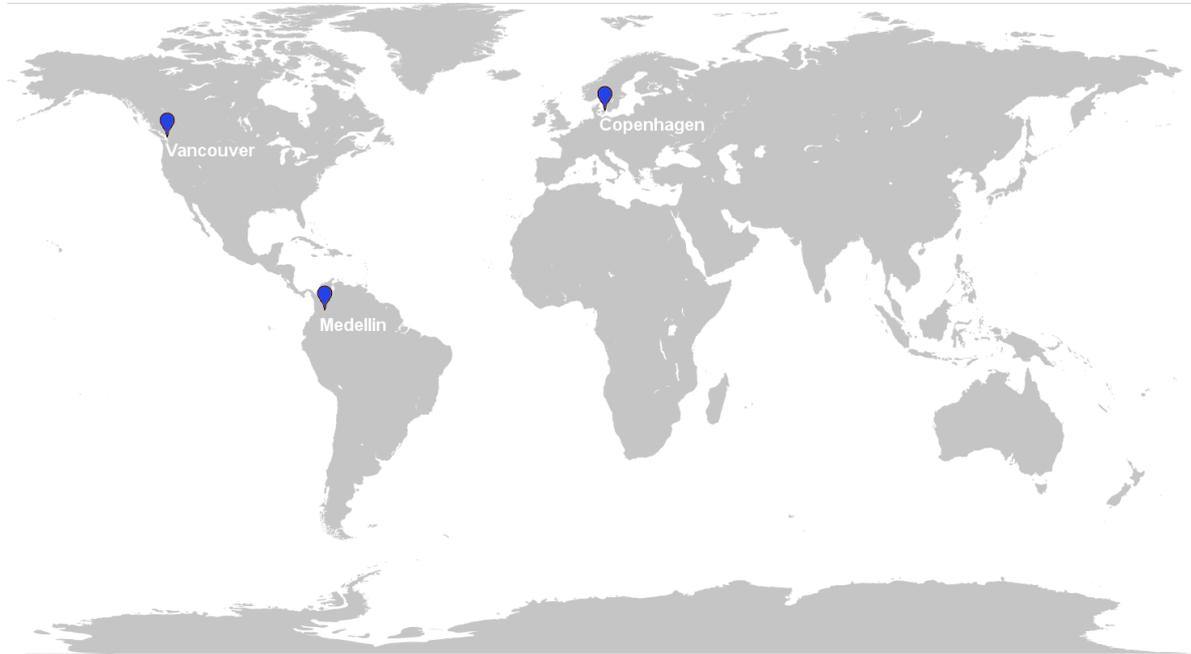
Danielle Sacks (2011) in her article “The Sharing Economy” mentions the case of Neal Gorenflo of Shareable. Gorenflo keeps himself busy sharing: he shares the nanny for his son with his neighbour, uses P2P banking, rents a car from a not-for-profit version of Zipcar called City CarShare, and once a week works in a shared office space. He is not alone in this movement: local sharing attracts ever more people as it becomes easier, and more and more economically significant (Sacks, 2011).

It becomes increasingly clear that the development of local capacity is desirable, and can serve as an accelerator for more initiatives emerging as well as growing into a global companies as it was with for example AirBnB or Zipcar (Opinium Research & Marke2ing, 2012).

3.5.3 Snapshot cases

To illustrate the impact of the Sharing Economy on urban economies in broad brushes, a short presentation of snapshot cases of cities in different parts of the globe (see Figure 3-1) with considerable amount of sharing initiatives is presented below.

Figure 3-1. Snapshot Cases Map



Source: Adapted from Wikimedia Commons (2006)

Copenhagen, Denmark

Jan Gehl (n.d.), a famous Danish architect calls Copenhagen a re-conquered city. The city is Denmark's largest, and the area of Greater Copenhagen is home to approximately a quarter of the country's entire population of almost 5.6 million (CIA, 2014c). Today, it is known as the world's number one biking city with its extensive biking infrastructure, and the world's first bicycling superhighway, as well as pedestrian friendly roads (Colville-Andersen, 2014; Gehl, n.d.). It is also a good example of a city that embraces sharing, and this is in spite of the fact that traditional Danish social norms tend to be rather reclusive (Agyeman et al., 2013). A public weekly meal has been shared in city's two different urban communities since 1970s. The greater Copenhagen area is considered to be the origin of co-housing, where communities live separately, but share extensive communal space, which enriches social integration. Even though no one-size-fits-all solution exists when trying to become a city that enables sharing and is more sustainable, Copenhagen has already become a model to follow for many (Kalan, 2014).

Medellín, Colombia

"Once notorious for its drug gangs, Medellín is now one of the world's most innovative cities" commented economist Joseph Stiglitz (2014). Medellín is Colombia's second largest city, and has a population of nearly 3.5 million (CIA, 2014b). The philosophy of *urbanismo social* (social civic planning) was encouraged by the Medellín Academy, and in the mid-1990s the discourse started to be forming by in empowering citizens, and beginning in the poorest neighbourhoods. The city administration's plan states "public space and infrastructure must become the framework where education and culture are cultivated in places of encounter and

coexistence” (as cited in Agyeman et al., 2013, p. 9). Shared public spaces became the central point of focus, and were designed in such a way as to fit into and enhance poorer neighbourhoods. These included the award-winning *parque biblioteca* (library park), a place where people can read, use computers or relax. Such public spaces, which were created for the people and with the people, are very well maintained by both the municipality and by the users too. Public transport was also re-designed to make it more accessible and as functional as possible. By re-reconstructing the city in such a way, social and economic barriers between the different groups in Medellín are successively being broken down, and while all problems have not yet been erased, the city is on a good track (Agyeman et al., 2013; Stiglitz, 2014).

Vancouver, Canada

Vancouver is Canada’s third largest city with a population of nearly 2.3 million (CIA, 2014a). In 2011 the Vancouver Tool Library (VTL), a non-profit cooperative dedicated to the lending and borrowing tools was launched, and as Diplock et al. (n.d.) underline, became part of a growing group of sharing organizations in the city. Moreover, as a focus group participant of “The Report on Sharing in Vancouver” stated: “In a place like Vancouver, sharing becomes a necessity” (Diplock et al., n.d., p. 10). Sharing in the city happens across the spectrum, from P2P lending or borrowing of physical media such as books, through companies sharing transportation to borrowing or accessing space or equipment via community organisations (Diplock et al., n.d.). Vancouver recognises its sharing opportunities¹⁸, and is on a good track to become one of the world’s leading sharing cities. Notably, as of March 2014 it has already officially become the home of North America’s largest fleet of Car2go smart cars (more than 700 vehicles) (Jackson, 2014).

3.6 How is Sharing perceived? A critical note

Modern type or style of sharing is a popular phenomenon and the interest in it is still growing. Recently though, alongside many favourable articles about sharing some voicing criticism towards certain aspects of it have been published (c.f. Bercovici, 2014; c.f. Gorenflo, 2014; Makkonen, 2014). This section focuses on the recent voices of criticism and will aim mainly at answering one question: is sharing just another version of consumerism?

“One nation, one solution, one app uber alles is a failed 20th century dream, not the 21st century reality we need.” – with these words Neal Gorenflo (2014) voiced his criticism towards concentration of wealth by companies such as Uber that are still a symbol of sharing. He stresses that the future belongs to enterprises that distribute control and wealth rather than to those that concentrate it. According to him, in order to attract and keep customers in a zero marginal cost world¹⁹ this is an increasingly practical necessity.

Bercovici (2014) argues that the competitive advantage of companies like Uber and AirBnB might prove to be unsustainable in the long run as their investment in venture capital puts them in a similar bind as industries like hospitality and transportation, which they have been able to disrupt. Furthermore, the criticism expands with regards to the money raised by these companies, which return to investors rather than users, who – as Bercovici (2014) highlights - “by nature of the sharing economy, often feel they’re the ones who created the value in the first place and deserve to partake in it.” Such a reaction to companies, which are the most visible in the sharing world, represents the disappointment that some develop as they feel that

¹⁸ For the list of opportunities to grow Vancouver’s sharing economy see Diplock et al. (n.d.), pp. 25-27.

¹⁹ Marginal cost is the cost of producing an additional unit(s) of a good or service, if fixed costs are not accounted for. For more information on zero marginal cost world see Rifkin (2014a, 2014b).

they are dealing with just another global corporation exploiting its “workers” (Makkonen, 2014).

Susie Cagle (2014) in her publication “Imagining the Future of Sharing” draws attention to drawbacks of sharing, such as unregulated labour, and the general lack of regulation (see Figure 3-2 below). These often overlooked aspects of the Sharing Economy can lead to the above mentioned exploitation, limited access to healthcare or social services including unemployment benefits etc. With sharing becoming more and more popular also among younger people (including children), it needs to be regulated as a lack of thereof could leave some groups/users vulnerable.

Figure 3-2. Imagining the Future of Sharing (excerpt) by Susie Cagle (2014)

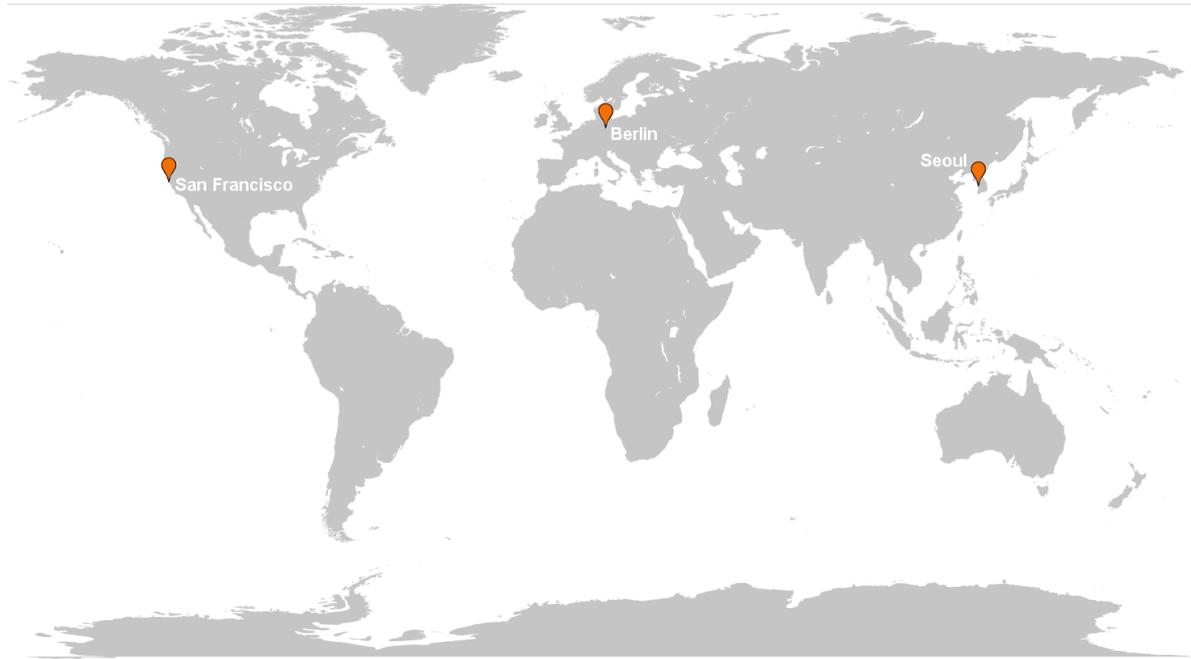


On a different note, but also worth addressing is that “sustainable development at local or regional levels does not necessarily relate to, and translate into, national or global sustainability and vice versa” (Frantzeskaki, Loorbach, & Meadowcroft, 2012, p. 22). That is to say that if Sharing proves to be successful in furthering sustainable lifestyle choices locally, this does not mean that they have large enough a scale to have macro-level impact. However, studies are being conducted to assess to which degree they can contribute to national and global goals for a sustainable urban development (Gil & Duarte, 2012).

4 Case Studies

In this chapter three case studies are presented: San Francisco (4.1), Berlin (4.2), and Seoul (4.3) (see Figure 4-1). The cities were chosen based on the criteria presented in Chapter Two (see Figure 2-1 and table 2-1). As stated in Chapter Two the Kipling Method was once again applied in order to organize the data in a coherent manner.

Figure 4-1. Case Studies Map



Source: Adapted from Wikimedia Commons (2006)

4.1 San Francisco

When & Why? The background of sharing in San Francisco

San Francisco in California, USA with a population estimated at roughly 825,000 “has been a historical hotspot for alternative cultural movements” (Shareable, n.d.-c) (World Population Statistics, 2013). Furthermore, it has been described as “a model for sharing economy policy, innovation and creative grassroots sharing projects that light the way for other cities” (Shareable, n.d.-c). In 2012 it also became the first city in the US to form The Sharing Economy Working Group, whose aim it is to “take a comprehensive look at the economic benefits, innovative companies and emerging policy issues around the growing 'sharing economy’” (as cited by Gorenflo, 2012). However, sharing was happening in San Francisco already well before that: Two of the most famous examples for successful sharing businesses – AirBnB whose concept originally emerged in 2007 in the city, and Uber launched in 2009, are both San Francisco-based (Bloomberg Businessweek, n.d.; Kaplansky et al., 2014).

What, Who & Where? Overview of initiatives

Transportation

In San Francisco car sharing is very popular, with hundreds of “casual car pooling” stations all across San Francisco Bay area (Russell Belk, 2014). It is believed that the ridesharing market in San Francisco Bay area is worth between \$150 and \$250 million in annual bookings (Olson &

Connor, 2013). SideCar, a ridesharing platform, which is an on-demand P2P rideshare service is just one example of a company present on the market in the city (Andersson et al., 2013). On another note, in San Francisco ride sharers and many others alike help to build trust and distrust in particular people offering the service as well as using it, by online ratings. Such a reputation categorisation method is helpful in establishing reputational economy, which makes transactions between strangers safer, and less uncertain (Russell Belk, 2014).

With regard to the city side of the transportation issue, San Francisco was quick to act: A change in the city's Planning Code requires that newly constructed buildings provide permanent car share parking spaces. Also, certain non-residential developments must dedicate five percent of their parking spaces to "short-term, transient use by vehicles from certified car sharing organisations" or other "co-operative auto programs" (Metropolitan Transportation Commission, n.d.; SFMTA, n.d.-b) (San Francisco Planning Code § 166(d)(1)).

Bike-sharing programmes are also an integral part of San Francisco's transport sharing options. The city's administration is actively promoting and engaging in bike-sharing via the Bay Area Bike Share (SFMTA, n.d.-a). Moreover, a website was created where users or potential users can indicate where they would like the Bay Area Bike Share stations to be located in San Francisco. Also, in order to improve the programme, the users can comment on the initial 35 pilot station locations (SFBikeShare, n.d.).

Food

San Francisco food share is thriving. One initiative recognised as one of the most loveable phenomena in the city called San Francisco Underground Market, is a place where people can exchange (albeit with money) homemade foods. It created opportunities to get into the market for many food entrepreneurs, who could not otherwise afford to operate. But it also became a place where community members could gather, and spend some time together while enjoying a good meal (SELC, 2011).

There are other platforms for food production and food sharing in San Francisco, with examples like shared commercial kitchens, such as La Cocina, an incubator kitchen, which reduces the barrier to entry for small entrepreneurs as well as community marketplaces, which create space for local products (La Cocina, n.d.; SELC, 2011). The concept of communal dining where random seating with strangers at refectory tables promotes connectedness is also being embraced in the city (Jarvis, 2011).

Additionally, some initiatives use social media platforms to operate, such as Food Revolution San Francisco, which in its mission statement underlines that it "seeks to educate, engage and connect the communities of San Francisco by promoting a healthful and conscientious approach to food culture" (The Food Revolution, n.d.). Even though not strictly a sharing initiative, The Food Revolution helps amongst others to share knowledge about healthy eating.

The city has also recognised that the land use law could be adjusted to aid sharing, and introduced a new land use category "Neighbourhood Agriculture", which permits community gardens, community-supported agriculture, market gardens, and commercial farms of less than an acre to sell or donate their produce (Calfee & Weissman, 2012) (San Francisco Planning Code § 102.35). Moreover, the 2009 directive asks the city to "conduct an audit of unused land - including empty lots, rooftops, windowsills, and median strips - that could be turned into community gardens or farms (Harkinson, 2009).

Housing

One of the most famous and successful housing initiatives in San Francisco is the San Francisco Community Land Trust (SFCLT), which is a limited-equity community non-profit organisation that develops permanently affordable housing for the community (Johnson, 2014a; Luna, 2010). Flatshare or roomshare is also extremely popular in the city. When typed into Google, “San Francisco flatshare” 2,170,000 results are shown (on the 25th of August 2014).

One way of helping in creation of more affordable and sustainable housing as well as to stimulate sharing is to promote the development of smaller dwellings. The city of San Francisco has recently approved an ordinance, which reduces the minimum size of a dwelling from 290 square feet to 220 square feet. It also allowed a construction of up to 375 tiny apartments units (Board of Supervisors, 2012).

Jobs & Skills

Providing grants, loans, and other financial support to cooperatives can reduce the high costs of starting up a business. The city and county of San Francisco Office of Economic and Workforce Development in 2012 provided a non-profit organisation – People Organised to Demand Environmental and Economic Rights (iPODER!), a \$76,000 grant to invest in its cooperative development project in the low-income Latino neighbourhoods (People Organizing to Demand Environmental & Economic Rights, 2014; Shareable & SELC’s Policies for Shareable Cities, 2013). Such aid from the municipality can reflect on the importance of initiatives like iPODER!, and could serve as an inspiration for others to follow.

How is sharing perceived? A critical note

As noted by Chelsea Rustrum (personal communication, 2014), a San Francisco-based Sharing Economy practitioner and interdependence consultant, sharing in San Francisco but also in general is attractive to people who are more liberal and those who appreciate a sense of community. On the other hand, its appeal is less for those who are wealthier as the aspect of saving money by sharing is less attractive to them. Ideally however, it should be attractive to all, not least because it might make people happier (ibid.). Rustrum underlines that cities including San Francisco have to engage more, and need to create a framework that will help the sprouting initiatives organise themselves, and better integrate with the city. She stresses that it is important to take ownership of the implementation, and such a framework could be a way to do exactly that. This is not to say however, that the city is to be operating all activities themselves, but rather to create an enabling framework. Part of the strength of the Sharing City is its bottom-up nature and opportunities for businesses, which the city could and should enable are very important, and not to be overshadowed by city’s own actions (S. Salz, personal communication, 2014).

At the moment, SPEAR and the Mayor’s office are taking part in spreading the word about sharing, but there is no clear ownership of the Sharing City movement in San Francisco (C. Rustrum, personal communication, 2014). Also, San Francisco could potentially join another (ideally US) city, and lead by example. This would make the Sharing City concept itself more visible as well as give tangible evidence that it is possible to implement. Ali Hart (2012) also underlines that “[t]his is a momentous opportunity for San Francisco to show the rest of the country how a shareable city can benefit everyone from the tourists to the residents to the business owners.”

Other issues have to do with aspects such as ethics and labour law omissions by companies engaging in sharing. The recent near-ban of Airbnb in San Francisco is an example of the former: some landlords had resorted to evicting their tenants in order to list their properties on Airbnb where they expected higher returns than from long-term tenants. This has caused an outrage amongst sharers as well as those not actively engaged in sharing, but who thought such practices despicable (O'Connor, 2014). By damaging its reputation, such behaviour can discourage potential sharers from joining initiatives and contributing to the Sharing City.

4.2 Berlin

When & Why? The background of sharing in Berlin

Berlin is Germany's largest city, and home to nearly 3.5 million inhabitants (CIA, 2014d). Located in the middle of Europe it is beloved by millions of tourists: in a record year 2010 the city recorded 20.8 million overnight hotel stays as well as 9.1 million hotel guests (Amt für Statistik, 2011). Also, aside from being the world's reigning hipster²⁰ capital for years now, it might become the sharing capital of Europe soon (Müser, 2014; wm, 2013). According to futurologist Peter Wippermann if Berlin is going to establish itself as the sharing capital of Europe, this will be a consequence of the distinctive intersection between the alternative green movement and old industry in the city (Oltermann, 2014).

In this spirit, the Sharing City Berlin Workshop in September 2013 was focused on the question "How can Berlin become the sharing capital of Europe?", and gave stimulating output by its participants²¹ (wm, 2013). More recently, in June 2014 the Sharing City Berlin Week together with OuiShare Summit Berlin was organised, and attracted considerable attention from media, NGOs as well as local communities (Berlin 21, n.d.; OuiShare, n.d.).

While there is no fixed concept of the Sharing City and no overall plan of how to become one, it seems that the transition to make Berlin a more liveable city by fostering sharing is inevitable (T. Doennebrink, personal communication, 2014).

What, Who & Where? Overview of initiatives

Transportation

Nowhere in Germany are there more options of carsharing than in Berlin (Rechel, 2012). Alongside more traditional carsharing options where a vehicle is brought back to a fixed station, new models are booming in Berlin. There are so many options to choose from that the easiest way of orientating among them is to have a look at websites like the Federation Carsharing (original: Bundesverband Carsharing – www.carsharing.de), where most Berlin providers are listed. Large corporations, such as BMW with its DriveNow or Daimler with Car2Go offer the one-way mode of driving. Cambio is another example of carshare in the city, with stations in central locations. But even for those in suburbs or living outside the S-Bahn network, carshare is more affordable than owning a car (Rechel, 2012).

An alternative, and very popular mode of shared transportation is the Call-a-Bike service, with stations across the city. Lending can be done quickly and spontaneously, and for about 15 € per day, or 9 € per day for railcard holders, the service is much used, especially among those who commute by train and like to bike further on (Rechel, 2012).

²⁰ Oxford Dictionary defines a hipster as "[a] person who follows the latest trends and fashions, especially those regarded as being outside the cultural mainstream" (Oxford Dictionary, n.d.).

²¹ For details on the outcome of the workshop as well as ideas presented see for example wm (2013).

US-based Uber has also tried to gain a foothold in Berlin, but amid protests by taxi drivers the service has for now been banned by the authorities due to an alleged lack of passenger safety, particularly in insurance protection. Uber has already taken legal steps against the decision and announced that it will operate in spite of the ban (Thadeusz, 2014).

Food

Food sharing is trendy as well as relatively easy to organise and access in Berlin. With a wide variety of initiatives, it attracts people from all social groups.

Websites such as Foodshare Deutschland²² serve as a platform that offers individuals, traders, and manufacturers the opportunity to exchange excess food. The largest bio-supermarket chain in Berlin and Brandenburg is fully cooperating with Foodshare, and the organisation expects to gain more business affiliations in the future. Users can get together to cook and share their food, and no money is involved as the idea behind it is to restore food's intrinsic value beyond mere merchandise (Foodsharing, n.d.-a, n.d.-b).

Raphael Fellmer, a passionate food activist recently created the LebensmittelretterInnen (Food Rescuers) group, which now has over 150 members in organic supermarkets, bakeries, grocery stores, etc. who take still edible food, and consume it by themselves or offer it online to other people, especially those in need. Such an initiative not only reduces the amount of food wasted, but also encourages, and promotes “the culture of sharing on a very practical level” (Raphael Fellmer as cited in Wiesmann, 2013).

Share your Food is yet another, and truly alternative model of sharing food. It was created as a series of events where food was the focus point, with the main idea was to “invite you to share with us not only our table, but also something you believe could feed our body and soul, in order to make our world a better place” (Richard, 2011).

Housing

Berlin is currently experiencing an unprecedented surge of co-housing communities, and communal living groups (Bildungswerk Berlin der Heinrich Böll Stiftung & Heyden, 2007). The city is known all across Germany for its Wohngemeinschaft or WG communal living arrangements. Described by Deutsche Welle (Bowen, 2010) as “[p]art socialist throwback, part progressive social experiment”, a WG usually host from two to 10, sometimes more occupants. The people who share housing in a WG often need to accept that a good deal of flexibility is needed when living with more than just immediate family. However, Bowen (2010) underlines that once forced to adapt and share it “can be a good thing for us natural egoists”. Moreover, groups tend to create their own dynamics, which creates a sense of being part of a community (ibid.).

Moreover, members of co-housing groups can obtain a customised, ecologically optimal house that includes community spaces at the wholesale price (Bildungswerk Berlin der Heinrich Böll Stiftung & Heyden, 2007). It has to be noted though, that Berlin has an extraordinarily rich “tradition, culture as well as contemporary scene in the area of self-organised and cooperative planning, constructing, living and working”, which is mainly why co-housing groups and communities once past the shortfall of available properties, are in a good position to quickly find advisors, architects, and financiers for their projects (ibid.).

²² For a two-minutes video on foodsharing see Foodsharing (n.d.-b).

Jobs & Skills

Berlin, aspiring to be the world's start-up capital, is also home to a booming scene of borrowing shops (Koch, 2014). As an example, the Leila's borrowing shop, where items can be borrowed rather than bought, opened in June 2012 and continues to serve as an inspiration for opening similar shops across the country (Oltermann, 2014). Even though Leila works on volunteering basis, it is successful in encouraging people to donate their time (and sometimes money) to a sharing cause.

A good example for a Sharing Economy project with an outlook for the future is located in the district of Wedding. 80 artists have joined together here to work with recycled materials and build Berlin's first "indoor treehouse" that is intended to serve as a "local public thinktank" (ibid.).

Betahaus, launched in Berlin's Kreuzberg in 2009, is one of the most well-known co-working spaces in Germany's capital. It does not only offer desks and wireless internet access, but also organises workshops on topics like Do It Yourself, Art and Design, and even weekly woodworking classes. With those being free to members, and costing only a few Euros for non-members, Betahaus attracts people interested in enhancing or developing new skills. Also, it is attractive to freelancers and start-ups alike, who can enjoy the opportunity to meet other often like-minded people, and connect to new businesses (Hackmann, 2014).

***How* is sharing perceived? A critical note**

As with San Francisco, Berlin too faces difficulties implementing the Sharing City ideas. With no fixed concept at hand, sharing is seen largely as an economic opportunity rather than a positive motion to improve the city (T. Doennebrink, personal communication, 2014). If more participants are to be engaged in the future, awareness about the SC possibilities and potential must be raised in communities as well as on the general city level. Moreover, some aspects of sharing must be de-stigmatised, like for instance the practice of receiving food, which still has bad connotations attached to it just as it is in the case of food stamps or welfare (Wiesmann, 2013).

Thomas Doennebrink (personal communication, 2014), a Berlin-based freelance expert on CC and connector of OuisShare Berlin also observed the necessity of changes in business behaviour. In the traditional model of conducting business, good behaviour does not necessarily produce good (financial) outcomes. To a large extent, the Sharing Economy on the other hand builds on such good behaviour towards others. At the same time, greed, power structures, and the unclear direction of money flows are a cause for concern as doubts on these issues among potential users can impair the uptake of the SC ideas. For Doennebrink, this must be addressed, and quality must be prioritised over quantity of initiatives in order to yield better results.

Moreover, in Berlin at the moment there is no organised structure for the creation of the SC. Thomas Doennebrink seems to be the only person actively engaging in creating one by working with different groups, developing the city's capabilities, and trying to engage higher level politicians in the SC projects. Yet so far, the city's authorities have not decided to take up SC in their work²³. To Doennebrink in the future the SC must be carried by a mixture of

²³ Mr. Doennebrink is currently engaging with high-level politicians in Berlin, and hopes that this might soon change (T. Doennebrink, personal communication, 2014).

stable institutions, small enterprises and communities, who all will be responsible for making the concept work in the city.

4.3 Seoul

When & Why? The background of sharing in Seoul

South Korea's capital and largest city is Seoul, with about 9.7 million people calling it home (CIA, 2014e). A relative newcomer to the industrialised world, rapid economic "catch-up" growth is still a very recent experience in the city. Consequently, overpopulation and urbanisation, which lead to serious housing, transportation and parking shortages as well as pollution, and resource overuse, amplified by the density of the city required innovative changes. Notably, Seoul, led by mayor Park Won-soon, is actively working on solving those issues by embracing the Sharing Economy (Johnson, 2013; N. Kwon & D. Jung, personal communication, 2014).

Just as San Francisco, Seoul is a member of the Sharing Cities Network. At the same time, it is significantly different from other sharing cities (including San Francisco and Berlin) in that it enjoys remarkably strong support from the city government which attempts to make it a sharing city (Shareable, n.d.-d). Thus on 20th September 2012, the Seoul Metropolitan Government has declared the Sharing City as a new city paradigm, and revealed that it plans to promote the "Sharing City Seoul" project (World Economic Forum, 2013). This project, which includes 20 sharing programmes and policies, is intended to generate and diffuse infrastructure in order to promote and enable sharing-based platforms (ibid.). In the process, the government is reviewing rules and regulations that inhibit or prevent Seoul's citizens from sharing and it is delivering its own sharing initiatives (Childs, n.d.). The city is perhaps uniquely positioned to take advantage of the Sharing City potential, especially given the fact that it is one of the biggest, densest (10 million people living within 234 square miles), and most digitally connected cities in the world: 60% of South Koreans own a smartphone, and 97.5% have broadband internet connection (Guerrini, 2014; Johnson, 2013; Stone, 2013).

With such a potential backed by the government's plan, South Korea's capital aims at becoming the very face of urban sharing, and thus has the potential to inspire cities throughout Asia and beyond to follow suit (Agyeman et al., 2013; Gorenflo, 2013b).

What, Who & Where? Overview of initiatives

Transportation

The Seoul government takes transportation issues seriously. Reflecting a mind set in which sustainability and not individual transport is prioritised, the slogan of the Seoul Traffic Vision 2030 declares: "Seoul, a city whose advanced transportation network makes private car ownership unnecessary!" (Seoul, n.d.). Part of this vision according to the authorities is that one of its core values is "All Sharing Traffic", and the creation of a joint-ownership traffic environment (ibid.).

Last year it introduced two car-sharing services under the name Nanum-Car: So-Car and Green Car, with a 492 vehicle fleet in 292 locations (Nikola, 2013). By 2020 it aims at expanding this number to 1,200 centres, making it accessible within 5 minutes from anywhere in the city (Seoul, n.d.). Seoul has also opened select government parking lots, and municipal buildings to the public during off-hours or idle-days, and is planning to develop a long-term project for personal car sharing – P2P (Johnson, 2013; Seoul, n.d.).

Non-government owned companies also have their say in Seoul, like for example KT car sharing, a sharing service for electric cars, or tikle, which connects people who want to find carpool partners²⁴ (de Villa, 2014). Altogether, in June 2014 there were 564 car-sharing locations in the city, with over 1,000 cars available (Johnson, 2014b).

Even though still in action, in July 2014, Seoul announced that it plans to ban Uber and in its place launch an application for official taxis. This was met with mixed responses, ranging from one by the company itself stating that "...Seoul is in danger of remaining trapped in the past and getting left behind by the global 'sharing economy' movement" to Neal Gorenflo's applauding "bravo Seoul" (Gorenflo, 2014). Gorenflo's point that a local solution is better than a globalised economy seems to be one shared by the municipality as well.

Food

Food sharing is not new to Korea: for centuries the tradition of "Pum-a-si" (exchange of work), where sharing food with neighbours, and exchange of labour at harvest time, was practiced. Even though with rapid urbanisation and industrialisation such a tradition of collaboration requires more effort to be cultivated, attempts have been made to restore it in a modern way (Guerrini, 2014).

Seoul City Farmers (SCF) proclaims itself as a group for all people, and especially those who are interested in "∼ growing food (plants, animals or bees) in the city ∼ learning about the food system ∼ cooking and sharing recipes ∼ sharing urban-eco resources ∼ exploring the local green community and local farms ∼ and much more!" (Seoul City Farmers, n.d.). Founded in May 2013, the organisation currently connects 465 city farmers, and organised 46 "meetups" (ibid.). SCF is beginning to connect itself better to Seoul's sustainability community, and while still relatively small, it is building a recognisable image in the city (Levenston, n.d.). Another example of foodsharing in the city is ZIPBOB, a social platform, which helps people instantly to find new friends to share meals with (de Villa, 2014).

Housing

Finding a place to stay in Seoul can be a considerable hassle to organise. Today, when the high cost of housing is making it unaffordable to many, sharing can offer a solution. Woozoo, a youth housing cooperative that offers diverse partnership services can serve as one example of flat-share, which serves an affordable alternative to traditional rental models (de Villa, 2014; Woozoo, n.d.).

Additionally, the Seoul city government in an attempt to tackle both the problems of aging population and youth housing shortage developed a project where elders provide housing to university students. Beyond using living space efficiently, such a house-share allows the growing number of senior population²⁵ and youth to connect, share experience, and exchange knowledge between generations (de Villa, 2014; Johnson, 2014b).

Jobs & Skills

Sharing enterprises in Seoul are growing, and some, such as the earlier mentioned Woozoo, even receive support from the city's government (Johnson, 2013). The city has subsidised the expenses of a total of 10 sharing enterprises with 250 million won (equivalent to € 180,000).

²⁴ For more extensive list see de Villa (2014).

²⁵ In Seoul only in the last 10 years the number of seniors living alone increased from 90,000 to 230,000 (Johnson, 2014b).

Such an approach is aimed at giving those selected enterprises a financial breathing room to focus on building or enhancing their services (ibid.). Seoul is also incubating approximately 20 sharing start-ups by providing office space, consultation, and financial support (ibid.). The city also engages with communities and helps them to connect with businesses.

Other independent initiatives such as wishket connect corporations with developers and designers who have skillset appropriate for the respective job. By participating in Ready&Start professionals can become mentors and share their current work experience with younger job seekers. Another still organisation Joinuskorea promotes and allows for knowledge exchange in the community by using a multi-language approach (e.g. English, Korean, Chinese) (de Villa, 2014).

How is sharing perceived? A critical note

Seoul's outlook for the future is quite positive: the city is recognising its problems, and seems to be on a good way to tackle them innovatively. However, Seoul does acknowledge that their SC project is just one option for increasing sustainability, and not a solution to all its problems. It is currently seen as an alternative to traditional models of conducting business, a sort of a lifestyle choice more than anything else (N. Kwon & D. Jung, personal communication, 2014). Likewise, the majority of people participating in the SC projects do so not for the environmental benefits, but rather for economic reasons (idle resources can be profitable if put into use) or as a new way to meet new people and create a sense of community (ibid.).

Moreover, knowledge about sharing possibilities in Seoul is still thinly spread among its residents, not least because there are no "super star" businesses that participate in the SC projects, and serve as well-visible examples. All in all though, despite the low number of participants, the city is doing a good job trying to spread the word further. Attitudes seem to be changing as well: according to Nanshil Kwon of Creative Commons Korea (CCK) and Share Hub²⁶ project manager, and Diane DaYe Jung, CCK activist (personal communication, 2014), people's reaction to SC Seoul can be viewed as positive, and many agree that the idea is needed. However, Kwon and Jung also point to the fact that there is a big difference between agreement and action and that the latter has to be worked on further.

In terms of a potential dispute between traditional businesses and sharing enterprises, Kwon and Jung underline that the traditional businesses in Seoul are not yet affected by an uptake of the SC initiatives as those are relatively small. Hence there have been no issues between businesses, and the SC Seoul projects to date. However, it has been noted that should sharing enterprises become more competitive, this could have implications for traditional business companies, and could become a problem in the future. Thus as a matter of precaution the city is currently in preparation of organising an expert group, which will conduct a study on SC impact on the city, and hopes that this will enable it to give ideas on what problems might occur in the future and how to tackle them (N. Kwon & D. Jung, personal communication, 2014).

4.4 Case Studies: Preliminary Conclusions

As was expected, choosing cities of diverse specifications has proven to show that a successful implementation of the SC concept rests on a variety of factors. The cases studied above

²⁶ Share Hub is a project that spreads information on the sharing culture, and connects individuals as well as groups interested in sharing. It is powered by CC Korea, and supported by Seoul City according to "Seoul Metropolitan Government Act for Promoting Sharing" (Share Hub, n.d.).

contrast in various aspects. All three cities as well as snapshot cases presented in chapter 2.5.3 face similar or even the same structural changes in an increasingly integrated global economy. To different degrees, their residents were all faced with the effects of the financial crisis of 2008, and subsequent changes in attitudes towards consumerism and ownership. Yet, they all met the related challenges from a different background.

Berlin and San Francisco share a population, which is more open to alternative movements such as sharing initiatives. The residents thus proved eager to engage in such projects. Seoul and San Francisco share a public administration that, albeit to different extents, accommodates or even promotes sharing initiatives. Berlin on the other hand is lacking such enthusiasm on the side of the authorities. In San Francisco the presence of vast business scene influences the visibility of sharing. All three have the potential to become regional role models of SC. In fact, Seoul could arguably be already close to being one.

5 Analysis

This chapter attempts to fill the gaps identified in the literature. Namely, it will address the lack of a state of the art overview of the Sharing City concept, which incorporates case studies of cities implementing sharing initiatives. Therefore, this chapter seeks to combine the findings of the above literature review with the case studies looked at in the previous part into a comprehensive analysis. It does so by picking up the research questions again and trying to answer why sharing cities emerge, what their driving forces, obstacles and potentials are (Figure 5-1).

Figure 5-1. The Sharing City Analysis Wheel



While the literature review has tended to emphasise the structural factors benefitting the emergence of Sharing Cities, the case studies have added to this by showing that engaged publics are needed to make use of the potential that structural factors provide.

5.1 Analysis Based on Literature Review & Case Studies

5.1.1 Why do Sharing Cities emerge?

In the literature review, underlying changes in the **global economy** have been identified as a major structural factor for the emergence of Sharing Cities. Major shifts have occurred in where value is produced: during early industrialisation – the time when modern large cities emerged – wealth had its origin in the physical production of goods. Nowadays, comparatively more value is derived from the management of knowledge and data streams. As during industrialisation, cities are however still at the forefront of this process although the processes underlying this prominent position are all but historic and are mainly based on ‘knowledge spillovers’ (Marshall, 1890). And while sharing too is not an entirely new phenomenon²⁷, the

²⁷ Indeed, some economists argue that sharing is one of the foundations of urbanisation in the first place. Some amenities of cities are only viable from a certain population size. The cost of, say, an ice hockey stadium can hardly be covered by a city

emergence, development and improvement of **ICT** has opened possibilities for individuals to engage in sharing resources that were previously virtually impossible to coordinate.

Beyond this, the recent **economic crisis** triggered by the financial crisis of 2008 has motivated many people to consider alternative ways of sustaining their life standard – not only by saving costs on certain services and goods, but also by generating additional income from offering their own resources and knowledge to others via sharing platforms.

Another important shift noticed above – which has also been amplified by the economic crisis – is a **change in attitudes towards consumption and ownership**. Evidence presented earlier suggested that “Keeping up with the Joneses” is becoming less important to people, and thus ownership of material objects plays a lesser role compared to access to required or desired goods than before. In the same vein, the social benefits of joining sharing initiatives are an important reason for many people to join them as they create networks of trust.

One could thus summarise the findings on why Sharing Cities emerge so far such that certain enabling factors, or enablers have to be present for this process to begin. However, many cities are facing these circumstances and have nevertheless not emerged as the Sharing Cities.

5.1.2 Driving Forces

The development of ICT, changing attitudes to consumption and ownership and economic considerations have been shown to be important factors contributing to the emergence of Sharing Cities. But as has been found, by themselves these factors do not seem to initiate any automatism of moving towards a Sharing City. Rather, the above suggests that beyond the enablers, an active effort has to be made by individuals and institutions to implement the Sharing City concept. So what or who are driving forces behind its implementation?

Reviewing the cases of San Francisco, Berlin and Seoul has shown the importance of individual and collective action through institutions. Practically, in an ideal case, a city would provide good access to **ICT infrastructure**, and an energetic **civil society** would be responded to by an accommodating, flexible **city administration**.

None of the three cases fulfil the ideal criteria, as the right mixture of cooperation between the city administration, its citizens, and businesses is absent. Out of the three, San Francisco may come closest to it with a **vibrant sharing business scene**, home to the headquarters of AirBnB and Uber, population that eagerly engages in sharing, and an administration that accommodates this development. However, there is still a significant room for improvement. Seoul on the other hand shows how **active** a **municipality** can be in promoting the SC ideas and actions. Yet, this seems much more necessary in a city where the population is not as enthusiastic about the concept. Berlin, lastly, prods a **sharing-enthusiastic population** but lacks support from the authorities almost entirely. Nevertheless, all three cities have an active and growing sharing scene. This shows that the impetus can come from both sides: population and/or city administration. It is hard to say, which would be preferable to the other. While San Francisco and Berlin show that sharing can function without much active support on the side of the authorities, Seoul’s case suggests that the government can also be capable of initiating the movement towards sharing.

of 1000 whereas the individuals of a community of 1 million face lower individual costs (and the likelihood that ice hockey fans are among them is higher, too).

5.1.3 Obstacles

In both literature review and case studies, obstacles to the implementation of SC schemes were identified largely in **legal frameworks** governing the sectors outlined.

Notably, the obstacles were identified in both directions: a **lack of regulation** for sharing, and **regulation that inhibits sharing**.

In the case of San Francisco both of these apply. Until recently limitations on flat sizes inhibited the construction of smaller apartments, making it more difficult for cooperatives to finance such dwellings. In areas of food and transportation a lack of clear regulation on liability can discourage people from engaging in sharing initiatives. On a small scale and in non-commercial alternative setting this may still be tolerable. As soon as it becomes part of a large-scale business enterprise such gaps are however highly problematic. The case of Uber's ban in Berlin, its near-ban in San Francisco, and the plans to ban it in Seoul too shows this vividly. But it also underlines that fixing such regulatory gaps is theoretically possible. In that sense, the bans can only be seen as a temporary measure until a proper solution is found to the challenges of commercial sharing to regulation that is still based on the assumption of conventional business.

Similar problems can be observed with sharing of food: in a case of food poisoning, could a sharer be considered customer in legal terms and demand compensation? So far, this question has been merely circumvented by bilateral agreements or rating systems (c.f. Braw, 2014). Legislative solutions to such problems are yet to emerge.

Finally, in the area of labour and job sharing, the current state of affairs threatens to leave people who offer their labour via online platforms unprotected from exploitation. Their economic exchange with "employers" may effectively reflect all but a conventional form of employment. However, because the official contractual basis is one of short term freelancing they enjoy none of the usual legal and social benefits that come with regular employment.²⁸

All in all, it should be noted that such issues could be discouraging to potential new participants in the Sharing City, and can impair the dissemination of the concept on a wider scale. This is not least to the fact that changes in legislation tend to be time-consuming and could be costly. However, given that the (partial) implementation of the concept is just beginning to take hold, cities have an opportunity to learn from the forerunners and their experiences.

5.1.4 Potentials

So far there are a few Sharing Cities and the benefits accrued from their implementation are relatively modest when seen from a global perspective. Agyeman et al. (2013) refers to four areas in which the implantation of Sharing Cities can have a positive impact. They can benefit the economic, environmental, social, and democratic factors of an urban community. The outcomes of the literature analysis and the case studies seem to be backing this notion. The four areas will be outlined in turn below.

In terms of the **economy** the cost savings or even earnings for individuals are the main benefits from sharing. For example carpooling or carsharing offer considerable savings for commuters, and enterprises such as AirBnB allow households to earn extra money from

²⁸ Similarly, taxation or lack of thereof on sharing initiatives could prove problematic. Also, if all the legally provided advantages of regular services had to be provided by sharing enterprises, too the implication for them in terms of business viability could be considerable.

renting a spare room. On another level, the interaction produced by sharing may also lead to more rapid economic growth as opportunities for companies, ranging from start-ups via small-medium enterprises (SME) to large corporations are vast.²⁹

When it comes to the **environment**, the benefits accrued are those one would intuitively expect: carsharing and other transport related sharing initiatives can lead to reductions in CO₂ emissions³⁰ as well as traffic congestion, natural resources are also saved due to the extended life cycle of products reused or used more efficiently though sharing, less food is wasted when initiatives are successful in promoting food-sharing (e.g. Foodshare in Berlin).

The most tangible **social** benefit from implementing sharing is enhanced social trust and cohesion (c.f. Agyeman et al., 2013; Botsman & Rogers, 2010b).

Figure 5-2. Participation in the Collaborative Economy: Recent and Projected (Crowd Companies & Vision Critical, 2014)



The expected gains for **democracy** through sharing can only be established somewhat indirectly. Since Athenian times, citizen’s active involvement in public affairs is seen as a

²⁹ Even if the advantages can be obtained somewhat indirectly. Examples of companies involved: Share a Bike by Deutsche Bahn or DriveNow by BMW.

³⁰ According to research by the Swiss Federal Office of Energy (2006) each active car-share user emits 290 kg CO₂ less than when not using such services.

crucial part of a lively democratic state³¹. Agyeman et al. (2013) argues that the norms propagated by sharing may eventually lead to increased appraisal by citizens for public affairs more generally. It also constitutes a pushback against the recent growth of particularism that is the strict focus on individual demands within a community (Gabriel, 2013).

Sure enough, none of the above potentials has been realised fully anywhere and at any time so far, and it is unlikely to be so. In all three case studies an alignment of public and private actors has proven to be illusive. Despite this fact amid the large scale of urbanisation globally even small changes in behaviour thanks to sharing if implemented in the majority of cities promise huge benefits in all four areas globally. If these findings are at all generalizable, this suggests a strong demand for and interest in sharing by populations at least in western countries. A recent poll conducted on more than 90,000 US, British, and Canadian respondents forecasts an increase in participation in sharing initiatives across the board (see Figure 5-2). This shows that an increased pool of potential sharers is emerging.

5.2 Analysis: Preliminary Conclusions

The findings above suggest that a successful implementation of Sharing Cities has significant potential in making a contribution towards more sustainable, economic, social, and democratic lifestyles and thus societies globally.

Its origins can be traced to changes in the global economy, the financial crisis' impact on people's economic decision-making as well as attitudes towards consumption and ownership. However, these structural forces do not lead to the emergence of Sharing Cities by themselves but rather act as enablers for such a development.

Driving forces for a successful implementation of Sharing Cities have been identified in (civil) society as well as government. While a certain acceptance of sharing is a useful precondition to the implementation of SC, the impetus in the case studies of this thesis has come from private initiative in two cities and public authorities in one case. In both variants, the developments look promising though ideally cooperation between both actors toward the successful implementation of SC would take place.

Such cooperation between government and private actors (civil society as well as business) could usefully be employed to identify and fix gaps and barriers in legislation that have been identified above as the main barrier for the implementation of sharing in cities.

Thus, Sharing Cities hold a considerable potential in improving lives globally. Their potential success hinges upon the active participation of citizens, institutions and governments alike.

³¹ In his well-known Funeral Oration, Pericles describes the Athenian constitution as „democracy because power is in the hands not of a minority but of the whole people. ... Here each individual is interested not only in his own affairs, but in the affairs of the state as well: even those who are mostly occupied with their own business are extremely well-informed on general politics” (as cited in Held, 2006, pp. 13–14).

6 Discussion

This chapter aims at scrutinising the validity of the research aim and questions, and the appropriateness of the chosen research methods. It also seeks to establish how applicable the findings are of this thesis in a general perspective. Finally, it will conclude by offering an additional take on the Sharing City concept.

6.1 Research Aims & Questions Legitimacy

The Sharing City concept is a new phenomenon, which only begins to be systematically studied. The author of this research has (so far) identified a limited number of publications on Sharing Cities, and two reports that have been conducted in a more comprehensive manner: Briefing: Sharing Cities by Agyeman et al. (2013); and Policies for Shareable Cities by Shareable & SELC's Policies for Shareable Cities (2013), both of which have been used in this thesis. Further studies are currently being undertaken, and a book by Julian Agyeman & Duncan McLaren titled "Sharing Cities" is due to be published in 2015 (Agyeman, 2014).

With the limited literature currently available on the topic, the author of this thesis has identified a literature gap, and established that in order to fill this gap the research should offer a holistic overview of the concept. Therefore, it should aim at: evaluating why Sharing Cities emerge, identifying the driving forces behind the concept, recognising obstacles to its dissemination, investigating its potential and providing an insight into the current (partial) implementation of the concept by presenting case studies.

Two research questions were formulated in order to attain the research aims. The first question addresses the reasons for the emergence of Sharing Cities, and asks what driving forces underlying this development can be identified. The second seeks to identify the obstacles to the (successful) implementation and dissemination of the Sharing City concept, and examines its potential. While these questions can be assessed as legitimate, both of them might be compromised by the lack of a clear and accepted definition of the Sharing City. The author acknowledges this as a strong limitation as it breaks with the classical approach to research, where a concept is first explicitly defined and only then applied. Nevertheless, in order to account for the complexity and multiplicity of the contemporary Sharing Cities understanding, an altered and broadened working definition was established. The RQs formulation can thus be deemed as valid regardless of this limitation.

Taking the above into consideration it can be concluded that the research aims as well as research questions were legitimate and valid.

6.2 Appropriateness and Validity of Research Methodologies

Given the novelty of the Sharing City concept the methodology was designed to aid the exploration of the topic.

First of all, triangulation was chosen as an approach to account for the validity of the collected data. It involves selection of multiple (usually, at least three) different methods of inquiry that allow for data cross-checking (Punch, 1998). As a result of this approach three data collection methods were used: literature review, case studies, and semi-structured in-depth interviews.

Secondly, the Kipling Method was used to organise the gathered data in the literature review (Chapter Three), and to arrange case studies data (Chapter Four). This approach aims at asking basic questions *When, Why, What, Who, Where, and How* in order to gain an understanding of the issue studied. It has to be noted, however, that with the Kipling Method

only giving a set of general questions it was up to the author of this thesis to decide how to suitably modify them to gain the most utility from the Method. By framing the questions as the author did (see Chapter 2.2), the research was able to achieve the intended outcome of providing a holistic picture of the Sharing City concept in a context set by the author. Had the author chosen to formulate the questions in a different fashion, the outcome of the research could have been different. Therefore, when studying this thesis the reader has to bear in mind that the research was contextualised, and therefore specific to the perspective used by the author.

Thirdly, the case studies were chosen based on the criteria established and justified by the author in Chapter Two. In an attempt to focus the research, the criteria allowed for no more than three cases, and it was decided that there should be no more than one case per continent. Also, three size brackets were created, and four priority sectors were included. Nevertheless, it must be noted that the choice of the criteria has most definitely affected the results of the case studies. Choosing another set of criteria may have resulted in selection of different case studies. It would have been interesting to for example contrast and compare case studies in the same region (e.g. within the same country) or the same size. However, given the holistic approach and global focus adapted in this thesis, the set of criteria used seems to have been an appropriate choice.

The author is cognisant of the contextualisation of this research, and therefore relies on the reader taking this into account.

In summary, the triangulation accounted for the validity of the collected data, the Kipling Method presented a good basis on which the author was able to build a framework for arranging and evaluating the data, and the choice of case studies criteria allowed accounting for the holistic and global approach of the research. Therefore, once the specific contextual aspects of this research are recognised, the choice of research methodologies can be asserted as appropriate and valid.

6.3 Generalizability of the findings

This thesis presents a holistic overview of the Sharing City concept and its application.

The study demonstrates that while there is no perfect Sharing City in existence as yet, the several Sharing City initiatives in various parts of the world are having an impact on the urban landscape in participant cities. Consequently, it is expectable that 1) similar developments – assisted by the enablers identified – are taking place elsewhere, and 2) the findings on other factors contributing to or inhibiting the Sharing Cities' implementation are generalizable for other cases, too. This expectation is underpinned by the fact that the case selection was relatively wide with three intensive case studies of different properties and three further snapshot cases, all of which presented similar developments.

Findings from literature review, interviews and case studies all highlight the influence of the Sharing City initiatives on the urban economy, infrastructure, politics, lifestyles, and environment. Nonetheless, the initiatives affect participant cities in various ways and to different degrees as could be seen particularly well in case studies presented. Moreover, the findings suggest that there is a significant potential for the Sharing City to make a positive contribution towards a more sustainable, economical, social, and democratic lifestyles both locally, and should it spread further – globally. Finally, the study found that the main obstacles to the (successful) dissemination of the Sharing City concept are the legal frameworks governing the sectors mentioned in this study. Both lack of regulation for sharing, and regulation that inhibits sharing were identified as considerably crippling.

In sum, the findings suggest that while conditions for the implementation of Sharing Cities vary considerably across the cases studied, the contributing and inhibiting factors seem to be the same or similar across the board, suggesting a high level of generalizability of this study's findings.

6.4 Discussion

Investigating Sharing Cities was a difficult undertaking, not least because of the fact that due to its novelty it is a challenging task to define what a Sharing City is. Consequently, the limited availability of data resulted in a necessity to work with a relatively broad definition of the concept.

From the very start of the research process it was clear that in order to gain an overview of the current state of the art of the Sharing City, there is a need for an extensive literature analysis. Thus the literature analysis (Chapter Three) is a rather lengthy part of this thesis. Many important aspects of the Sharing City are presented there, and give a good basis for the next steps in the research.

As with many other new concepts, the Sharing City research presented challenges when it came to depicting the application of the concept in the real world. At the time of writing, the author was not aware of any studies that present Sharing City case studies in as a comprehensive manner³².

The case studies offered a good impression of actions on the ground, but also brought a couple points to light that are worthy of attention:

Firstly, context is extremely important. In San Francisco for example, the presence of the business sector, and its involvement in 'sharing' can have implications on the availability of sharing initiatives as well as the participation of different actors. It can be said that although sharing may be regarded as an alternative to traditional consumption and production patterns, it is at the same time not as subversive as it sounds, and offers a viable and profitable business model. Many large companies, such as AirBnB have their headquarters in San Francisco, and while they emerged in the city as sharing initiatives, some argue that they resemble 'big business-as-usual' much more than civil society initiatives. This can result in different actors willing to participate in sharing initiatives in the city, as some can view it as simply profitable business opportunities. In Berlin, on the other hand, the process is more driven by people (see Berlin case study). Notably the presence of the hipster culture, which is interested in de-commercialisation of lifestyles, presents a different narrative. As Thomas Doennebrink (personal communication, 2014) highlighted – as long as sharing is an alternative it will remain popular in the city³³. In Seoul, another context is present – the unusually high number of people connected to the Internet, and the participation of the city's administration. The former offers a remarkably high potential to access prospective sharers and (their) resources. The latter makes Seoul a unique case, where the Sharing City concept is an actual city policy.

Secondly, commercialisation of sharing is a valid concern. Byung-Chul Han, a Seoul-born philosophy and cultural studies lecturer at the Universität der Künste Berlin in a recently published article in the German press claims that the ideology of the community, or collaborative commons leads to total marketization of society (2014). He brings up the

³² It has to be noted though, that The Sharing Cities Network offers an overview of (some) participating cities (Berlin is not included) (Shareable, n.d.-b).

³³ It of course does not mean that large companies are not active in Berlin, but it might mean that they will not be as visible as in San Francisco for example.

example of the many times mentioned in this text, AirBnB, where every home can be turned into a hotel, and thus making hospitality a mean to achieve economic gains. Han argues that there is no purposeless friendliness possible any longer as friendliness is being commercialised (e.g. the friendlier one is the better review he/she receives, the more business is possible).

If Han's views hold true, the potentials of the Sharing City concept highlighted in the analysis (Chapter Five) can be substantially diminished, e.g. democratic could be affected. The ideal of citizens' engagement in public affairs is built on the assumption that this be altruistic, in the interest of the community, and not the individual. Han's analysis of sharing businesses as 'commercialisers' of people's every action puts this conception of citizenship on its head. Therefore, this rather bold account of the Sharing Economy, and by extension the Sharing City has to be acknowledged and should be addressed in future research. Empirically, this could for example focus on the effects that sharing has on people's perceptions and conception of the scope of market exchanges³⁴.

Ultimately, the Sharing City is a concept not yet fully developed, and before any judgement is made about its consequences, it must be studied further. Therefore, the following and final Chapter is going to provide the answers to the research questions as well as offer final remarks and future research recommendations.

³⁴ In the private sphere, for example may the globalisation of charging strangers for what could count as a favour spill over to other relationships like friendships. Concretely, will we start charging our friends via AirBnB when they visit?

7 Concluding Remarks

“Now is the age of sharing” – this quote marked the beginning of this thesis. In our ever-urbanising, increasingly unsustainable world, the role of sharing in modern lifestyles will most likely continue to grow in importance. As this thesis showed, the evolution of new business models based on sharing resources, services or lifestyles, and away from ownership is all but underway already. All developments point to the notion that it is in cities that sharing can flourish the most.

7.1 Research Questions Addressed

To recap, the two aims of this research were to evaluate why Sharing Cities emerge, to identify the driving forces behind the concept, to recognise obstacles to its dissemination, and to investigate its potential; and to present case studies from across the globe, and offer an insight into the (partial) implementation of the Sharing City concept.

Two research questions were developed in order to fulfil the above aims:

- I. a) *Why do the Sharing Cities emerge, and b) what are the driving forces behind their emergence?*
- II. a) *What are the obstacles to the (successful) implementation and dissemination of the Sharing City concept on a wider scale, and b) what is its potential?*

Through a process involving literature analysis, qualitative data collection via semi-structured in-depth interviews and loose discussions, as well as case studies it was possible to gain an overview of reasons for the Sharing Cities emergence, driving forces behind it, obstacles to its dissemination, and what is its potential.

RQ I:

a) *Why do Sharing Cities emerge?* Several reasons or enablers for the emergence of the Sharing Cities were identified in this thesis (see Chapter 5.1.1). The underlying changes in global economy have been observed as a major structural factor. The recent economic crisis motivated people to consider alternative ways of sustaining their life standard. Changes in attitudes towards consumption and ownership have also been noted as an important factor. Finally, the development and improvement of ICT has opened possibilities for individuals to engage in sharing resources that were virtually impossible to coordinate before; *and*

b) *What are the driving forces behind Sharing Cities' emergence?* The driving forces behind the emergence of Sharing Cities have been recognised in this thesis as good access to ICT infrastructure, presence of energetic civil society, and flexible city administration (see Chapter 5.1.2). Other drivers include a vibrant sharing business scene (as in San Francisco), an active municipality (as in Seoul), and a sharing-enthusiastic population (as in Berlin).

RQ II:

a) *What are the obstacles to the (successful) implementation and dissemination of the Sharing City concept on a wider scale?* The main obstacles to the implementation and dissemination of the Sharing City concept on a wider scale were identified in legal frameworks governing the sectors outlined in the research (see Chapter 5.1.3). The obstacles were identified in both directions: a lack of regulation for sharing, and regulation that inhibits sharing; *and*

b) What is the potential of Sharing Cities? The research indicated that Sharing Cities can benefit the economic, environmental, social, and democratic dimensions of an urban community, and hence this is where the main potentials of the concept lie (see Chapter 5.1.4). It should be noted however that these benefits are highly contingent on the kind of sharing implemented in cities. Depending on this implementation, sharing may lead not only to benefits but even have detrimental effects on employees, businesses, and other stakeholders.

7.2 Contribution to the Field & Future Research Recommendations

This research offered an overview of the Sharing City concept, and gave examples of its implementation. It contributed into the body of literature by offering a comprehensive approach for a systematic assessment of the Sharing City concept, and presentation of implementation examples. If this research is contextualised to the specific circumstances and requirements of the assessment, this approach can be applied to other case studies, and hence be generally applicable. Since it was the first attempt to analyse the Sharing City in such a manner, the results should be always perceived in context, and in order for the approach to be applied in other cases – further refined.

Therefore, this study could be considered an opening phase in Sharing City research. New avenues for further research have surfaced, and thus a selection of future research recommendations will be presented below.

A policy analysis of the Sharing City in terms of its effectiveness towards different policy goals could be useful. A thorough analysis of the sustainability of the Sharing City initiatives could be particularly relevant in establishing conclusively to what extent it contributes to national and global sustainability goals (e.g. by European Union, 2014). Also, an analysis of which legislative changes would be necessary to aid dissemination of the concept could be desirable and useful not least to potential participant cities.

As this thesis was an exploratory study of a new phenomenon, the focus was global. A region- or country-focused study could help to understand and map regional trends in the Sharing City concept implementation.

The final recommendation has to deal with the disruptive aspects of implementation of the Sharing City concept on a wider scale. While it was mentioned in this thesis, the disruption to traditional businesses was not discussed in great detail. However, future implications may be considerable, and should be investigated further. Also, as pointed out above, Seoul is already in the process of creating an expert group, which is going to research potential problems that their Sharing City implementation might cause in the future (not only for traditional businesses, but also a host of other stakeholders). It would be worthwhile for other cities to note this investigation's results as well as to conduct similar studies themselves. Once again, this highlights the need for further inquiry into Sharing Cities, to which this thesis has attempted to contribute.

Bibliography

- Agyeman, J. (2014). Moving Beyond the Sharing Economy: The Case for “Sharing Cities.” *Just Sustainabilities*. Retrieved July 31, 2014, from <http://julianagyeman.com/2014/07/beyond-sharing-economy-case-sharing-cities/>
- Agyeman, J., McLaren, D., & Schaefer-Borrego, A. (2013). Briefing: Sharing Cities. *Friends of the Earth*, (September), 1–32.
- Amt für Statistik. (2011). *Pressemitteilung Nr. 47 vom 18. Februar 2011*. Berlin.
- Anderson, M., & Galatsidas, A. (2014). Urban population boom poses massive challenges for Africa and Asia. *The Guardian*. Retrieved August 02, 2014, from http://www.theguardian.com/global-development/2014/jul/10/urban-population-growth-africa-asia-united-nations?CMP=tw_t_gu
- Andersson, M., Hjalmarsson, A., & Avital, M. (2013). Peer-to-Peer Service Sharing Platforms: Driving Share and Share Alike on a Mass-Scale. In *34th International Conference on Information Systems* (pp. 1–15).
- Banbury, C., Stinerock, R., & Subrahmanyam, S. (2012). Sustainable consumption: Introspecting across multiple lived cultures. *Journal of Business Research*, *65*(4), 497–503. doi:10.1016/j.jbusres.2011.02.028
- Belk, R. (2007). Why Not Share Rather Than Own? *The Annals of the American Academy of Political and Social Science*, *611*(1), 126–140. doi:10.1177/0002716206298483
- Belk, R. (2010). Sharing. *Journal of Consumer Research*, *36*(5), 715–734. doi:10.1086/612649
- Belk, R. (2014). You are what you can access: Sharing and collaborative consumption online. *Journal of Business Research*, *67*(8), 1595–1600. doi:10.1016/j.jbusres.2013.10.001
- Benita Matofska. (n.d.). What is the Sharing Economy? *The People Who Share*. Retrieved September 11, 2014, from <http://www.thepeoplewhoshare.com/blog/what-is-the-sharing-economy/>
- Benkler, Y. (2004). Sharing Nicely: On Shareable Goods and the Emergence of Sharing as a Modality of Economic Production. *The Yale Law Journal*, *114*(2), 273–358.
- Bercovici, J. (2014). Why Uber And Airbnb Might Be In Big Trouble. *Forbes*. Retrieved August 21, 2014, from <http://www.forbes.com/sites/jeffbercovici/2014/05/13/why-uber-and-airbnb-might-be-in-big-trouble/>
- Berlin 21. (n.d.). Sharing City Berlin Week. *Berlin 21*. Retrieved August 26, 2014, from <http://www.berlin21.net/termin/sharing-city-berlin-week>
- Bildungswerk Berlin der Heinrich Böll Stiftung, & Heyden, M. (2007). Berlin - Wohnen in Eigener Regie. *Wohnportal Berlin*. Retrieved August 26, 2014, from <http://wohnportal-berlin.de/berlin-wohnen-in-eigener-regie>
- Bloomberg Businessweek. (n.d.). Best Young Tech Entrepreneurs 2009: AirBnB. *Bloomberg Businessweek*. Retrieved August 24, 2014, from http://images.businessweek.com/ss/09/04/0421_best_young_entrepreneurs/9.htm
- Blundell-Wignall, A., Atkinson, P., & Lee, S. H. (2008). *The Current Financial Crisis: Causes and Policy Issues*. OECD.
- Board of Supervisors. Planning Code - Efficiency Dwelling Units - Numerical Cap and Open/Common Space Requirements (2012). San Francisco.

- Botsman, R. (2014). The Sharing Economy Lacks A Shared Definition. *Co.Exist*. Retrieved July 11, 2014, from <http://www.fastcoexist.com/3022028/the-sharing-economy-lacks-a-shared-definition>
- Botsman, R., & Rogers, R. (2010a). Beyond Zipcar : *Harvard Business Review*, (October).
- Botsman, R., & Rogers, R. (2010b). *What's Mine is Yours: The Rise of Collaborative Consumption*. London: Harper Collins.
- Bowen, K. (2010). Communal living becomes a social experiment in Berlin. *Deutsche Welle*. Retrieved August 26, 2014, from <http://www.dw.de/communal-living-becomes-a-social-experiment-in-berlin/a-6092980>
- Braw, E. (2014). Free lunch, anyone? Foodsharing sites and apps stop leftovers going to waste. *The Guardian*. Retrieved August 27, 2014, from <http://www.theguardian.com/sustainable-business/free-food-sharing-leftovers-surplus-local-popular>
- Brenner, N., Marcuse, P., & Mayer, M. (2009). Cities for people, not for profit. *City*, 13(2-3), 176–184. doi:10.1080/13604810903020548
- Brunner, P. H. (2011). Urban Mining: A Contribution to Reindustrializing the City. *Journal of Industrial Ecology*, 15(3), 339–341. doi:10.1111/j.1530-9290.2011.00345.x
- Bus et Car, & Intermodos. (2013). *Intermodality: The Norwegian Model*. Retrieved from <http://www.busetcar.com/outils/upload/transport/BC932-intermodalite/index.html>
- Butterworth, T. (2012). Welcome To The Age Of Urban Mining. *Forbes*. Retrieved August 19, 2014, from <http://www.forbes.com/sites/trevorbutterworth/2012/07/17/welcome-to-the-age-of-urban-mining/>
- Cagle, S. (2014). Imagining the Future of Sharing. *The Nib — Medium*. Retrieved August 02, 2014, from <https://medium.com/the-nib/imagining-the-future-of-sharing-3fc2a6564a08>
- Calfee, C., & Weissman, E. (2012). Permission to Transition: Zoning and the Transition Movement. *Planning & Environmental Law*, 64(5), 3–10. doi:10.1080/15480755.2012.683689
- Carley, M., Jenkins, P., & Smith, H. (2001). *Urban Development and Civil Society: The Role of Communities in Sustainable Cities* (Vol. 5). Routledge. Retrieved from <http://books.google.com/books?hl=en&lr=&id=ycT9AQAAQBAJ&pgis=1>
- Chesky, B. (n.d.). Shared City. *Medium*. Retrieved July 12, 2014, from <https://medium.com/@bchesky/shared-city-db9746750a3a>
- Childs, M. (n.d.). Seoul: Can a “sharing culture” make cities more sustainable? *European Sustainable Cities Platform*. Retrieved August 02, 2014, from <http://www.sustainablecities.eu/local-stories/seoul-city/>
- CIA. (2014a). CIA World Factbook. Canada. Retrieved August 22, 2014, from <https://www.cia.gov/library/publications/the-world-factbook/geos/ca.html>
- CIA. (2014b). CIA World Factbook. Colombia. Retrieved August 21, 2014, from https://www.cia.gov/library/publications/the-world-factbook/geos/countrytemplate_co.html
- CIA. (2014c). CIA World Factbook. Denmark. Retrieved August 22, 2014, from <https://www.cia.gov/library/publications/the-world-factbook/geos/da.html>
- CIA. (2014d). CIA World Factbook. Germany. Retrieved August 22, 2014, from <https://www.cia.gov/library/publications/the-world-factbook/geos/gm.html>

- CIA. (2014e). CIA World Factbook. South Korea. Retrieved August 22, 2014, from <https://www.cia.gov/library/publications/the-world-factbook/geos/ks.html>
- City of London. (2014). *Planning a sustainable future for the City of London. Waste strategy 2013-2020*. Retrieved from <http://www.cityoflondon.gov.uk/services/environment-and-planning/waste-and-recycling/Documents/city-of-london-waste-strategy.pdf>
- CO-UP/Share. (2013). "The Sharing City, Seoul" Project. Retrieved August 02, 2014, from <http://co-up.com/share/archives/32498>
- Cohen, M. J. (2013). Collective dissonance and the transition to post-consumerism. *Futures*, 52, 42–51. doi:10.1016/j.futures.2013.07.001
- Colville-Andersen, M. (2014). Bicycle Urbanism by Design. In *ICN SUMmit 2014. Creating Smarter Solutions*. Copenhagen, Denmark. Retrieved from https://www.eiseverywhere.com/file_uploads/c33dd404d0dd9d6be6863f06a2434d80_Colville-AndersenBicycleCultureByDesign.pdf
- Crowd Companies, & Vision Critical. (2014). *Sharing is the New Buying: How to Win in the Collaborative Economy*. Retrieved from http://www.slideshare.net/jeremiah_owyang/sharingnewbuying/1
- De Villa, M. (2014). City Guide: Seoul. *Collaborative Consumption*. Retrieved August 26, 2014, from <http://www.collaborativeconsumption.com/2014/03/13/city-guide-seoul/>
- Denzin, N. K. (1978). *Sociological Methods: A Sourcebook* (Second.). McGraw-Hill Book.
- Derojeda, K., Verzijl, D., Nagegaal, F., Lengton, M., Rouwmaat, E., Monfardini, E., & Frideres, L. (2013). The Sharing Economy. Accessibility Based Business Models for Peer-to-Peer Markets. *Business Innovation Observatory*.
- Diplock, C., Easton, C., Craib, K., Luna, F., Kurbis, D., Milne, G., ... Bock, M. (n.d.). A Report on Sharing in Vancouver. *The Sabring Project*.
- Dobbs, R., Smit, S., Remes, J., Manyika, J., Roxburgh, C., & Restrepo, A. (2011). Urban world: Mapping the economic power of cities. *McKinsey Global Institute*, (March). Retrieved from http://www.mckinsey.com/insights/urbanization/urban_world
- Doennebrink, T. (2014). Personal Communication, 10 July 2014.
- Dubois, E., Schor, J., & Carfanga, L. (2014). Connected Consumption: A Sharing Economy Takes Hold. *Rotman Management*.
- Ede, S. (2014). The Circular Economy meets The Access Economy. *Post Growth Institute*. Retrieved August 03, 2014, from <http://www.resilience.org/stories/2014-08-01/the-circular-economy-meets-the-access-economy>
- Eggers, W. D., & Goldsmith, S. (2009). *The Public Innovator's Playbook: Nurturing bold ideas in government*. Deloitte Research. Retrieved from [http://www.deloitte.com/assets/Dcom-Portugal/LocalAssets/Documents/pt\(en\)_pshhc_innovatorsplaybook.pdf](http://www.deloitte.com/assets/Dcom-Portugal/LocalAssets/Documents/pt(en)_pshhc_innovatorsplaybook.pdf)
- European Environmental Agency. (2006). *Urban sprawl in Europe. The ignored challenge. Report No 10/2006*.
- European Union. (2014). *General Union Environment Action Programme to 2020. Living well, within the limits of our planet*. Luxemburg. doi:10.2779/66315

- Fell, D. (2012). Why waste is still a built environment concern for sustainable cities. *The Guardian*. Retrieved September 04, 2014, from <http://www.theguardian.com/sustainable-business/waste-built-environment-sustainable-cities>
- Foodsharing. (n.d.-a). Share food instead of throwing it away. *Foodsharing Deutschland*. Retrieved August 26, 2014, from <http://foodsharing.de/>
- Foodsharing. (n.d.-b). What is foodsharing? *Foodsharing Deutschland*. Retrieved August 26, 2014, from <http://foodsharing.de/was-ist>
- Fournier, S., Eckhardt, G. M., & Bardhi, F. (2013, July). Learning to Play in the New “ Share Economy .” *Harvard Business Review*, (August), 125–129.
- Frantzeskaki, N., Loorbach, D., & Meadowcroft, J. (2012). Governing societal transitions to sustainability. *International Journal Of Sustainable Development*, 15(1/2), 19–36.
- Friends of the Earth. (2013). Big Idea 2: Sharing - a political force to be reckoned with? *Friends of the Earth*. Friends of the Earth. Retrieved August 02, 2014, from http://www.foe.co.uk/bigideas/think_piece_cities_sharing_41208.html
- Gabriel, R. (2013). *Why I buy: Self, taste, and consumer society in America*. University of Chicago Press.
- Gansky, L. (2010). *The Mesh: Why the future of business is sharing*. Penguin.
- Gaskins, K. (2010). Shareable / Latitude 42: The New Sharing Economy Study. *Latitude Research*^o. Retrieved August 02, 2014, from <http://latd.com/2010/06/01/shareable-latitude-42-the-new-sharing-economy/>
- Gehl, J. (n.d.). Public Spaces - Public Life - for the 21st Century. Retrieved from http://www.uirs.si/Portals/_default/predavanja/080528_UI_lecture_Jan_Gehl_Urban_Design_for_People.pdf
- Gil, J., & Duarte, J. P. (2012). *Tools for evaluating the sustainability of urban design: a review*. *Urban Design and Planning*. Retrieved from http://www.academia.edu/2613229/Tools_for_evaluating_the_sustainability_of_urban_design_a_review
- Goel, S. (2014). *Capitalism Versus the Sharing Economy*. University of California Berkeley. Retrieved from <http://escholarship.org/uc/item/8xd4m19w#page-1>
- Gorenflo, N. (2012). San Francisco Announces Sharing Economy Working Group. *Shareable*. Retrieved August 24, 2014, from <http://co-up.com/share/archives/32498>
- Gorenflo, N. (2013a). Collaborative consumption is dead, long live the real sharing economy. *PandoDaily*. Retrieved July 12, 2014, from <http://pando.com/2013/03/19/collaborative-consumption-is-dead-long-live-the-real-sharing-economy/>
- Gorenflo, N. (2013b). What’s Next for the Sharing Movement? *Shareable*. Retrieved August 02, 2014, from <http://www.shareable.net/blog/whats-next-for-the-sharing-movement>
- Gorenflo, N. (2014). Why Banning Uber Makes Seoul Even More of a Sharing City - Shareable. *Shareable*. Retrieved August 02, 2014, from <http://www.shareable.net/blog/why-banning-uber-makes-seoul-even-more-of-a-sharing-city>
- Growth Strategies. (2014). Are we becoming a collaborative economy? Possibly. *Growth Strategies*, (1083), 2–4.

- Guerrini, F. (2014). How Seoul Became One Of The World's Sharing Capitals. *Forbes*. Retrieved August 26, 2014, from <http://www.forbes.com/sites/federicoguerrini/2014/05/25/how-seoul-became-one-of-the-worlds-sharing-capitals/>
- Haapio, A. (2012). Towards sustainable urban communities. *Environmental Impact Assessment Review*, 32, 165–169. doi:10.1016/j.eiar.2011.08.002
- Hackmann, F. (2014). Betahaus, Berlin's most known coworking space, turns five. *VentureVillage*. Retrieved August 26, 2014, from <http://venturevillage.eu/betahaus-berlins-most-known-coworking-space-turns-five>
- Hampshire, R. C., & Gaites, C. (2011). Peer-to-Peer Carsharing: Market Analysis and Potential Growth. *Journal of the Transportation Research Board*, 2(2217), 119–126. Retrieved from <http://trid.trb.org/view.aspx?id=1093048>
- Han, B.-C. (2014). Neoliberales Herrschaftssystem - Kommunismus als Ware, das ist das Ende der Revolution. *Süddeutsche Zeitung*. Retrieved September 10, 2014, from <http://www.sueddeutsche.de/politik/neoliberales-herrschaftssystem-warum-heute-keine-revolution-moeglich-ist-1.2110256-2>
- Hansen, M. S., & Power, K. (2010). *Evaluation of tools to promote sustainable consumption and green lifestyles*. Copenhagen, Denmark. Retrieved from <http://cri.dk/files/dokumenter/artikler/backgroundpapersessions456.pdf>
- Hardy, Q. (2014, August 12). What cars did for today's world, data may do for the world of the future. *International New York Times*.
- Hart, A. (2012). How San Francisco Can Lead the Sharing Economy. *Shareable*. Retrieved August 25, 2014, from <http://www.shareable.net/blog/how-san-francisco-can-lead-the-sharing-economy>
- Heinberg, R. (2013). Who knew that Seoul was a leader in the sharing economy? *Post Carbon Institute*. Retrieved August 02, 2014, from <http://www.postcarbon.org/blog-post/1949822-who-knew-that-seoul-was-a>
- Held, D. (2006). *Models of Democracy* (Third.). Cambridge: Polity.
- Hughes, J., Lang, K. R., & Vragov, R. (2008). An analytical framework for evaluating peer-to-peer business models. *Electronic Commerce Research and Applications*, 7(1), 105–118. doi:10.1016/j.eierap.2007.01.001
- Jackson, E. (2014). Is Vancouver the car sharing capital of North America? *Metro*. Retrieved August 22, 2014, from <http://metronews.ca/news/vancouver/986202/is-vancouver-the-car-sharing-capital-of-north-america/>
- Janssen, C. (n.d.). Consumer-to-Business (C2B) Definition. *Techopedia*. Retrieved August 19, 2014, from <http://www.techopedia.com/definition/23258/consumer-to-business-c2b>
- Jarvis, H. (2011). Saving space, sharing time: integrated infrastructures of daily life in cohousing. *Environment and Planning A*, 43(3), 560–577. doi:10.1068/a43296
- Johnson, C. (2013). Is Seoul the next Great Sharing City? *Our World*. Retrieved July 12, 2014, from <http://ourworld.unu.edu/en/is-seoul-the-next-great-sharing-city>
- Johnson, C. (2014a). 11 Affordable Housing Alternatives for City Dwellers. *Shareable*. Retrieved August 25, 2014, from <http://www.shareable.net/blog/11-affordable-housing-alternatives-for-city-dwellers>
- Johnson, C. (2014b). Sharing City Seoul: a Model for the World. *Shareable*. Retrieved August 26, 2014, from <http://www.shareable.net/blog/sharing-city-seoul-a-model-for-the-world>

- Kalan, J. (2014). 10 Million Sardines in a Sea of Skyscrapers. *Foreign Policy*. Retrieved from http://www.foreignpolicy.com/articles/2014/05/08/think_again_sprawling_megacities_lagos_mumbai_u_rbanization
- Kaplansky, D., Segal, B., & Wei, Z. (2014). Prepare to Share. *Management Today*, 34–38.
- Kearns, D. T., & Nadler, D. A. (1995). Prophets in the Dark: How Xerox Reinvented Itself and Beat Back the Japanese. *The Journal of the Operational Research Society*, 46(7), 914–915.
- Kipling, R. (1902). *Just So Stories*. Macmillan & Co. Retrieved from <http://www.gutenberg.org/files/2781/2781-h/2781-h.htm>
- Kneeshaw, S. (2014). The Sharing Economy: What's In It For Cities? *URBACT The blog*. Retrieved July 12, 2014, from <http://www.blog.urbact.eu/2014/05/the-sharing-economy-whats-in-it-for-cities/>
- Koch, C. (2014). Ready to join the sharing economy? *Director*, 66.
- Korobar, V. (2013). *The Interconnection of Sustainability and Collaborative Consumption - A case study of clothing libraries*. Lund University. Retrieved from <http://lup.lub.lu.se/luur/download?func=downloadFile&recordId=3800323&fileId=3800324>
- Kunst, F. (2013). *Challenges and Answers: The Berlin Transport Strategy 19 June 2013* (pp. 1–39). Berlin. Retrieved from <http://sustainabledevelopment.un.org/content/documents/3708kunst.pdf>
- Kuymulu, M. B. (2013). Reclaiming the right to the city: Reflections on the urban uprisings in Turkey. *City*, 17(3), 274–278. doi:10.1080/13604813.2013.815450
- Kwon, N., & Jung, D. (2014). Personal Communication, 14 July 2014.
- La Cocina. (n.d.). La Cocina. Cultivating Food Entrepreneurs. *La Cocina*. Retrieved August 25, 2014, from <http://www.lacocinasf.org/>
- Lamberton, C. P., & Rose, R. L. (2012). When is Ours Better than Mine? A Framework for Understanding and Altering Participation in Commercial Sharing Systems. *Journal of Marketing*, (July), 1–51. Retrieved from <http://ssrn.com/abstract=1939289>
- Levenston, M. (n.d.). Seoul City Farmers – Korea. *City Farmer News*. Retrieved August 26, 2014, from <http://www.cityfarmer.info/2014/04/08/seoul-city-farmers-korea/>
- Lewis, M. O., & Elaver, R. (2014). Managing and fostering creativity: An integrated approach. *The International Journal of Management Education*, 12(3), 235–247. doi:10.1016/j.ijme.2014.05.009
- Luna, M. (2010). How to Start a Housing Co-op. *Shareable*.
- Macaulay, L. A. (2012). *Case Studies in Service Innovation*. (I. Miles & B. Ilby, JenniferAn, Yin LengHao, Lipingheodoulidis, Eds.). New York: Springer New York.
- Makkonen, J. (2014). The collaborative economy is for everyone. *OuiShare*. Retrieved August 02, 2014, from <http://magazine.ouishare.net/2014/07/the-collaborative-economy-is-for-everyone/>
- Marshall, A. (1890). *Principles of Economics*. London: Macmillan.
- Matofska, B. (2013). Facing the future: share to survive. *Friends of the Earth*. Retrieved August 02, 2014, from https://www.foe.co.uk/news/thepeoplewhoshare_38689

- Mayer, M. (2009). The “Right to the City” in the context of shifting mottos of urban social movements. *City*, 13(2-3), 362–374. doi:10.1080/13604810902982755
- Metropolitan Transportation Commission. (n.d.). *Reforming Parking Policies to Support Smart Growth. Toolbox/Handbook: Parking Best Practices & Strategies For Supporting Transit Oriented Development in the San Francisco Bay Area. Reforming Parking Policies to Support Smart Growth.*
- Mont, O., & Power, K. (2009). *Understanding factors that shape consumption.* Retrieved from http://scp.eionet.europa.eu/publications/wp2013_1/wp/wp2013_1
- Mont, O., & Power, K. (2010). The Role of Formal and Informal Forces in Shaping Consumption and Implications for a Sustainable Society. Part I. *Sustainability*, 2(7), 2232–2252. doi:10.3390/su2072232
- Moore, R. (2014). Copper Lane review – an appealing, harmonious, cost-effective model for communal living. *The Observer.* Retrieved September 03, 2014, from <http://www.theguardian.com/artanddesign/2014/aug/31/copper-lane-review-cohousing-stoke-newington-henley-halebrown-orrison>
- Müser, K. (2014). How to become a hipster and why no one wants to. *Deutsche Welle.* Retrieved August 26, 2014, from <http://www.dw.de/how-to-become-a-hipster-and-why-no-one-wants-to/a-17568441>
- Niculae, E., Glyki, E., & Campbell, J. (2013). *Business Innovation in a Living Economy.* (D. Yeow & B. Normander, Eds.). Copenhagen, Denmark: Worldwatch Institute Europe.
- Nikola. (2013). Overview of Seoul’s Car-Sharing Services. *Kojects.* Retrieved August 26, 2014, from <http://kojects.com/2013/04/18/overview-of-seoul-car-sharing-services/>
- O’Connor, L. (2014). Airbnb Faces Near-Ban In San Francisco. *Huffington Post.* Retrieved August 02, 2014, from http://www.huffingtonpost.com/2014/04/29/airbnb-laws-san-francisco_n_5235820.html
- Olson, M. J., & Connor, A. D. (2013). The Disruption of Sharing: An Overview of the New Peer-to-Peer “Sharing Economy” and The Impact on Established Internet Companies. *Piper Jaffray*, (November), 72–75. Retrieved from <https://piper2.bluematrix.com/docs/pdf/35ef1fcc-a07b-48cf-ab80-04d80e5665c4.pdf>
- Oltermann, P. (2014). Berlin “borrowing shop” promotes the benefits of sharing. *The Guardian.* Retrieved August 22, 2014, from <http://www.theguardian.com/world/2014/mar/17/berlin-borrowing-shop-benefits-share-leila>
- Opinium Research, & Marke2ing. (2012). *The Sharing Economy.* Retrieved from http://opinium.co.uk/sites/default/files/Opinium_Marke2ing_Sharing_economy_Report.pdf
- OuiShare. (n.d.). OuiShare Summit Berlin. *Strikingly.* Retrieved August 26, 2014, from <http://ouisharesummitberlin.strikingly.com/>
- Owyang, J. (2014). Framework: Collaborative Economy Honeycomb. *Jeremiah Onyang Blog.* Retrieved August 19, 2014, from <http://www.web-strategist.com/blog/2014/05/05/framework-collaborative-economy-honeycomb-osfest14/>
- Oxford Dictionary. (n.d.). Hipster: definition. Retrieved September 11, 2014, from <http://www.oxforddictionaries.com/definition/english/hipster>
- Ozanne, L. K., & Ballantine, P. W. (2010). Sharing as a form of anti-consumption? An examination of toy library users. *Journal of Consumer Behaviour*, 498(9), 485–498. doi:10.1002/cb

- People Organizing to Demand Environmental & Economic Rights. (2014). People Organizing to Demand Environmental & Economic Rights |. Retrieved June 22, 2014, from <http://www.poddersf.org/>
- Phan, D. D. (2003). E-business development for competitive advantages: a case study. *Informantion & Management*, 40, 581–590.
- Punch, K. F. (1998). *Introduction to Social Research: Quantitative and Qualitative Approaches*. SAGE Publications.
- Purcell, M. (2013). The right to the city: the struggle for democracy in the urban public realm. *Policy & Politics*, 43(3), 311–327.
- Rechel, U. (2012). Carsharing - Modelle in Berlin. *Tip Berlin*. Retrieved August 26, 2014, from <http://www.tip-berlin.de/kultur-und-freizeit-stadtleben-und-leute/vergleich-carsharing-modelle-berlin>
- Reid, I., & Smyth-Renshaw, J. (2012). Exploring the Fundamentals of Root Cause Analysis: Are We Asking the Right Questions in Defining the Problem? *Quality and Reliability Engineering International*, 28(5), 535–545. doi:10.1002/qre.1435
- Richard, C. (2011). Share your Food: A Holistic Approach. *Berlin Art Link*. Retrieved August 26, 2014, from <http://www.berlinartlink.com/2011/04/14/share-your-food-a-holistic-approach-2/>
- Rifkin, J. (2014a). The End of the Capitalist Era, and What Comes Next. *Huffington Post*. Retrieved August 21, 2014, from <http://www.shareable.net/blog/why-banning-uber-makes-seoul-even-more-of-a-sharing-city>
- Rifkin, J. (2014b). The Zero Marginal Cost Society | Authors at Google. *Talks at Google*. Retrieved September 04, 2014, from <https://www.youtube.com/watch?v=5-iDUcETjvo>
- Rostow, W. W. (1990). *The Stages of Economic Growth: A Non-Communist Manifesto* (Revised.). Cambridge: Cambridge University Press.
- Sacks, D. (2011). The Sharing Economy. *Fast Company*. Retrieved July 09, 2014, from <http://www.fastcompany.com/1747551/sharing-economy>
- Schifferes, J. (2013a). Profiting from sharing (Part 2). *RSA. Action and Research Centre*. Retrieved June 05, 2014, from <http://www.rsablogs.org.uk/2013/social-economy/profitting-sharing/>
- Schifferes, J. (2013b). Sharing our way to prosperity (Part 1). *RSA. Action and Research Centre*. Retrieved June 05, 2014, from <http://www.rsablogs.org.uk/2013/social-economy/sharing-prosperity/>
- Schultz, R. (2013). Adjacent opportunities: the collaboration economy. *E:CO*, 15(4), 144–146.
- SELC. (2011). The Shareable Food Movement Meets the Law. *Shareable*. Retrieved August 25, 2014, from <http://www.shareable.net/blog/the-shareable-food-movement-meets-the-law>
- Seoul. (n.d.). Seoul Traffic Vision 2030. *The Official Website of Seoul Metropolitan Government*. Retrieved August 26, 2014, from <http://english.seoul.go.kr/policy-information/traffic/seoul-traffic-vision-2030/>
- Seoul City Farmers. (n.d.). Seoul City Farmers. *Meetup*. Retrieved August 26, 2014, from <http://www.meetup.com/Seoul-City-Farmers/>
- SFBikeShare. (n.d.). About SFBikeShare. *SF Bike Share Sites*. Retrieved September 04, 2014, from <http://sfbikeshare.sfmta.com/page/about>

- SFMTA. (n.d.-a). Bike Sharing. *San Francisco Municipal Transportation Agency*. Retrieved September 04, 2014, from <http://www.sfmta.com/projects-planning/projects/bike-sharing>
- SFMTA. (n.d.-b). Car Sharing Policy and Pilot Project. *San Francisco Municipal Transportation Agency - Projects*. Retrieved June 22, 2014, from <http://sfmta.com/projects-planning/projects/car-sharing-policy-and-pilot-project>
- Share Hub. (n.d.). Meet Share Hub. *Share Hub*. Retrieved August 27, 2014, from <http://sharehub.kr/english>
- Shareable. (n.d.-a). About - Shareable. Retrieved September 08, 2014, from <http://www.shareable.net/about>
- Shareable. (n.d.-b). Sharing Cities Network. Retrieved September 10, 2014, from <http://www.shareable.net/sharing-cities>
- Shareable. (n.d.-c). Sharing Cities Network. San Francisco, CA, USA. *Shareable*. Retrieved August 24, 2014, from <http://www.shareable.net/cities/san-francisco-ca-usa>
- Shareable. (n.d.-d). Sharing Cities Network. Seoul, South Korea. *Shareable*. Retrieved August 24, 2014, from <http://www.shareable.net/cities/seoul-south-korea>
- Shareable. (2014). Retrieved August 03, 2014, from <http://www.shareable.net/>
- Shareable and Sustainable Economies Law Center Team. (2013). Policies for Shareable Cities: A Sharing Economy Policy Primer for Urban Leaders. *Shareable*. Retrieved August 02, 2014, from <http://www.resilience.org/stories/2013-09-11/policies-for-shareable-cities-a-sharing-economy-policy-primer-for-urban-leaders>
- Shareable, & SELC's Policies for Shareable Cities. (2013). *Policies for Shareable Cities. A Sharing Economy Policy Primer for Urban Leaders*.
- Sharetribe. (2014). Retrieved August 03, 2014, from <https://www.sharetribe.com/>
- Silver, J. (2013). The sharing economy: a whole new way of living | Technology | The Observer. *The Guardian*. Retrieved May 05, 2014, from <http://www.theguardian.com/technology/2013/aug/04/internet-technology-fon-taskrabbit-blablacar>
- Skidelsky, R., & Skidelsky, E. (2012). *How Much is Enough? The Love of Money, and the Case for the Good Life*. London: Penguin.
- Sørensen, E., & Torfing, J. (2010). *Working paper series : Studies in Collaborative Innovation* (pp. 1–23). Retrieved from www.ruc.dk/?eID=push&docID=5617
- Srivastava, M. (2013). A Comprehensive Study of Corporate Social Responsibility with the Help of Rudyard Kipling's Model. *AIMA Journal of Management & Research*, 7(1/4).
- Steinberg, S., & Vlastic, B. (2013). Car-Sharing Services Grow, and Expand Options. *New York Times*. Retrieved August 19, 2014, from http://www.nytimes.com/2013/01/26/business/car-sharing-services-grow-and-expand-options.html?ref=technology&_r=1&
- Stiglitz, J. (2014). Medellín: A Light Unto Cities. *Carnegie Council: Policy Innovations*. Retrieved August 02, 2014, from <http://www.policyinnovations.org/ideas/innovations/data/000262>
- Stone, Z. (2013). Why The Sharing Economy Is Taking Off In Seoul. *Co.Exist*. Retrieved July 12, 2014, from <http://www.fastcoexist.com/1682623/why-the-sharing-economy-is-taking-off-in-seoul>

- Swiss Federal Office for Energy. (2006). *Evaluation Car-Sharing*. Bern.
- Thadeusz, J. (2014). "Uber" macht weiter - trotz Verbot. *rbb Rundfunk Berlin-Brandenburg*. Retrieved August 26, 2014, from <http://www.rbb-online.de/wirtschaft/beitrag/2014/08/berliner-behoerde-verbietet-uber-app.html>
- The Economist. (2013). Peer-to-peer rental. The rise of the sharing economy. *The Economist*. Retrieved May 02, 2014, from <http://www.economist.com/news/leaders/21573104-internet-everything-hire-rise-sharing-economy>
- The Food Revolution. (n.d.). Food Revolution San Francisco. *The Food Revolution Facebook Page*. Retrieved August 25, 2014, from <https://www.facebook.com/FoodRevolutionSF/info>
- The World Bank. (2013). Learning To Be More Energy Efficient in Europe and Central Asia: Lessons from Success Stories. Retrieved September 05, 2014, from <http://www.worldbank.org/en/news/feature/2013/06/25/energy-efficiency-lessons-learned-europe-and-central-asia>
- The World Bank. (2014). Urban Development | Data. Retrieved August 02, 2014, from <http://data.worldbank.org/topic/urban-development>
- United Nations. (2012). *World Urbanization Prospects. The 2011 Revision*.
- Urban Mining. (n.d.). About Urban Mining. Retrieved September 05, 2014, from <http://urbanmining.org/>
- Volker, B., & Flap, H. (2007). *Sixteen Million Neighbors: A Multilevel Study of the Role of Neighbors in the Personal Networks of the Dutch*. *Urban Affairs Review* (Vol. 43, pp. 256–284). doi:10.1177/1078087407302001
- WHO. (n.d.). WHO | Urban population growth. *Global Health Observatory*. World Health Organization. Retrieved August 27, 2014, from http://www.who.int/gho/urban_health/situation_trends/urban_population_growth_text/en/
- Wiesmann, T. (2013). Living by the Principle of Sharing – an interview with Raphael Fellmer. *OuShare*. Retrieved July 30, 2014, from <http://magazine.ouishare.net/2013/06/raphael-fellmer-sharing-food-waste/>
- Wikimedia Commons. (2006). Blank Politic World Map. Retrieved August 11, 2014, from http://www.google.de/imgres?imgurl=http%3A%2F%2Fupload.wikimedia.org%2Fwikipedia%2Fcommons%2F%2Fec%2FWorld_Map_Blank.svg&imgrefurl=http%3A%2F%2Fcommons.wikimedia.org%2Fwiki%2FFile%3AWorld_Map_Blank.svg&h=1537&w=2752&tbnid=KGq3SSZc8eNjNlM%3A&zooom=1&docid=5EjpnwFxeRFNM&ei=B9YRVNrziIKaygOVl4DgBg&tbm=isch&client=safari&iact=rc&uact=3&dur=1269&page=1&start=0&ndsp=13&ved=0CCIQRQMwAA
- wm. (2013). Sharing City Berlin – Workshop 2013-09-27. *Social Foresight Network*. Retrieved August 26, 2014, from <http://socialforesight.wordpress.com/2013/10/01/sharing-city-berlin-workshop-2013-09-27/>
- Woozoo. (n.d.). Woozoo guide for foreigners. Retrieved from <http://woozoo.kr>
- World Economic Forum. (2013). Circular Economy, Innovation & New Business Models Dialogue. Young Global Leaders Sharing Economy Dialogue Position Paper 2013. *Young Global Leaders*.
- World Population Statistics. (2013). San Francisco Population 2013. Retrieved August 22, 2014, from <http://www.worldpopulationstatistics.com/san-francisco-population-2013/>
- Yin, R. K. (2003). *Applications of case study research* (2nd ed.). London: SAGE.

Yin, R. K. (2014). *Case study research: design and methods* (5th ed.). London: SAGE.

Zervas, G., Proserpio, D., & Byers, J. W. (2014). *The Rise of the Sharing Economy: Estimating the Impact of Airbnb on the Hotel Industry*. Retrieved from <http://ssrn.com/abstract=2366898>

Appendix A

INTERVIEW GUIDE I

LIST OF INTERVIEWEES

Thomas Doennebrink, a Berlin-based freelance expert on Collaborative Consumption and connector of OuiShare Berlin was interviewed on the 10th of July 2014 via telephone call.

Neal Gorenflo, the co-founder of Shareable was interviewed on the 15th of July 2014 via email.

Nanshil Kwon, the Creative Commons Korea and Share Hub project manager & **Diane DaYe Jung**, the Creative Commons Korea activist were interviewed on the 14th of July 2014 via Skype.

Chelsea Rustrum, a San Francisco-based sharing economy practitioner and interdependence consultant was interviewed on the 30th of July 2014 via Skype.

LIST OF DISCUSSANTS

European Commission Official was consulted in-person in Brussels, Belgium on the 28th of February 2014.

Eva Heiskanen, a Visiting Professor at the IIIIEE and an Associate Professor at the Helsinki School of Economics was consulted in-person in Lund, Sweden in the early stages of this research.

Kes McCormick, a Docent at the IIIIEE was consulted in-person in Lund, Sweden in the early stages of this research.

Philip Peck, an Associate Professor at the IIIIEE was consulted in-person in Lund, Sweden in the early stages of this research.

Susanne Salz, a Project Manager at the Collaborating Centre on Sustainable Consumption and Production (CSCP) in Wuppertal, Germany was consulted throughout the research period.

Åke Thidell, an Assistant Professor at the IIIIEE was consulted in-person in Lund, Sweden in the early stages of this research.

Appendix B

INTERVIEW GUIDE II

Questionnaire 1/2

The following questionnaire including an introductory statement was used for semi-structured interviews in three out of four interviews.

Questionnaire for semi-structured interviews:

The research investigates the concept of a sharing city, attempts to identify opportunities as well as barriers to its dissemination, and presents case studies from across the globe: Berlin, San Francisco, and Seoul.

Main questions

Additional questions

Clarifying questions

<i>Main questions</i>	<i>Additional questions</i>	<i>Clarifying questions</i>
1. DESCRIPTION:		
<ul style="list-style-type: none">• Can you tell me about a sharing city?	<ul style="list-style-type: none">• How did you learn about a sharing city?	<ul style="list-style-type: none">• Can you expand a little on this?
Or	<ul style="list-style-type: none">• Or what is your role in it?	<ul style="list-style-type: none">• Can you tell me anything else?
<ul style="list-style-type: none">• What is a sharing city?		<ul style="list-style-type: none">• Can you give me some examples?
Or		
<ul style="list-style-type: none">• How would you define a sharing city?		
2. EXPLANATION:		
<ul style="list-style-type: none">• Why a sharing city?	<ul style="list-style-type: none">• Does it (Sharing City) happen?	
<ul style="list-style-type: none">• What do you think were the reasons for its emergence?	<ul style="list-style-type: none">• What is the history behind sharing city?	
<ul style="list-style-type: none">• Were there specific interests groups/people who initiated it?		
<ul style="list-style-type: none">• Was there a formal decision or has it evolved naturally?		
Or		
<ul style="list-style-type: none">• Why did/does it (sharing city) happen?		
<ul style="list-style-type: none">• How did the idea emerge and develop, and over what period of		

time?

3. UNDERSTANDING AND INTERPRETATION:

- Could you describe how the sharing city looks like, what activities comprise it, and how it changed over time?
- What does it mean for you/business/etc.?

Or

- What does it mean for a city?
- What is the contribution of sharing city to a city?
- In what way does a city or people benefit from Sharing Economy: economic, environmental or social sustainability?

4. PREDICTION:

- What is to be expected?
- Why?
- (this question is still to be expanded and developed: focus areas: specific contributions)
- What about the potential of SCity to develop; expand; increase quality of life or social justice?
- How can a sharing city contribute to economic prosperity or social cohesion of a city or its citizens,
- How can it reduce environmental impacts by reusing or producing products and services?

5. ATTRACTIVENESS:

- What is it that makes a sharing city attractive?
- ...for a city/you/business/etc.?

Or

- What are the main benefits of a sharing city?

6. CRITIQUE:

- What problems, challenges and barriers have the movement encountered during establishment of Sharing Economy?
- Are there different in challenges between different activities, e.g. growing food, sharing cars or exchanging goods and services?
- How can they be overcome?

Or

- What are the main obstacles to dissemination and scaling up of the sharing city idea?

7. DISTRUPTION:

- Are there limitations of/to a sharing city?
- How can these assumptions be challenged/interrupted?

Or

Can you think of any threats caused by the larger uptake of sharing city?

8. PRESCRIPTION, CHANGE AND EMANTICIPATION:

- How do you imagine a sharing city of the future (ideal/optimal SC)?
- Do you think it is feasible?
- What do you think is needed for it to be feasible?

Or

- How can it be transformed for the better?

Questionnaire 2/2

The following questionnaire including an introductory statement was used for semi-structured interviews in one (Neal Gorenflo) out of four interviews.

Simplified Questionnaire:

The research investigates the concept of a Sharing City, attempts to identify opportunities as well as barriers to its dissemination, and presents case studies from across the globe: Berlin, San Francisco, and Seoul.

1. How would you define a Sharing City?
2. What do you think were the reasons for the emergence of Sharing City?
3. What is the contribution of Sharing City to a city?
4. How can a Sharing City contribute to economic prosperity or social cohesion of a city or its citizens?
5. What is it that makes a Sharing City attractive?
6. What are the main obstacles to dissemination and scaling up of the Sharing City idea?
7. Are there limitations (or threats) of/to a sharing city?
8. How do you imagine a Sharing City of the future (ideal/optimal SC)?

